

MONTREAL
HORTICULTURAL SOCIETY

AND

FRUIT GROWERS' ASSOCIATION OF P. Q.

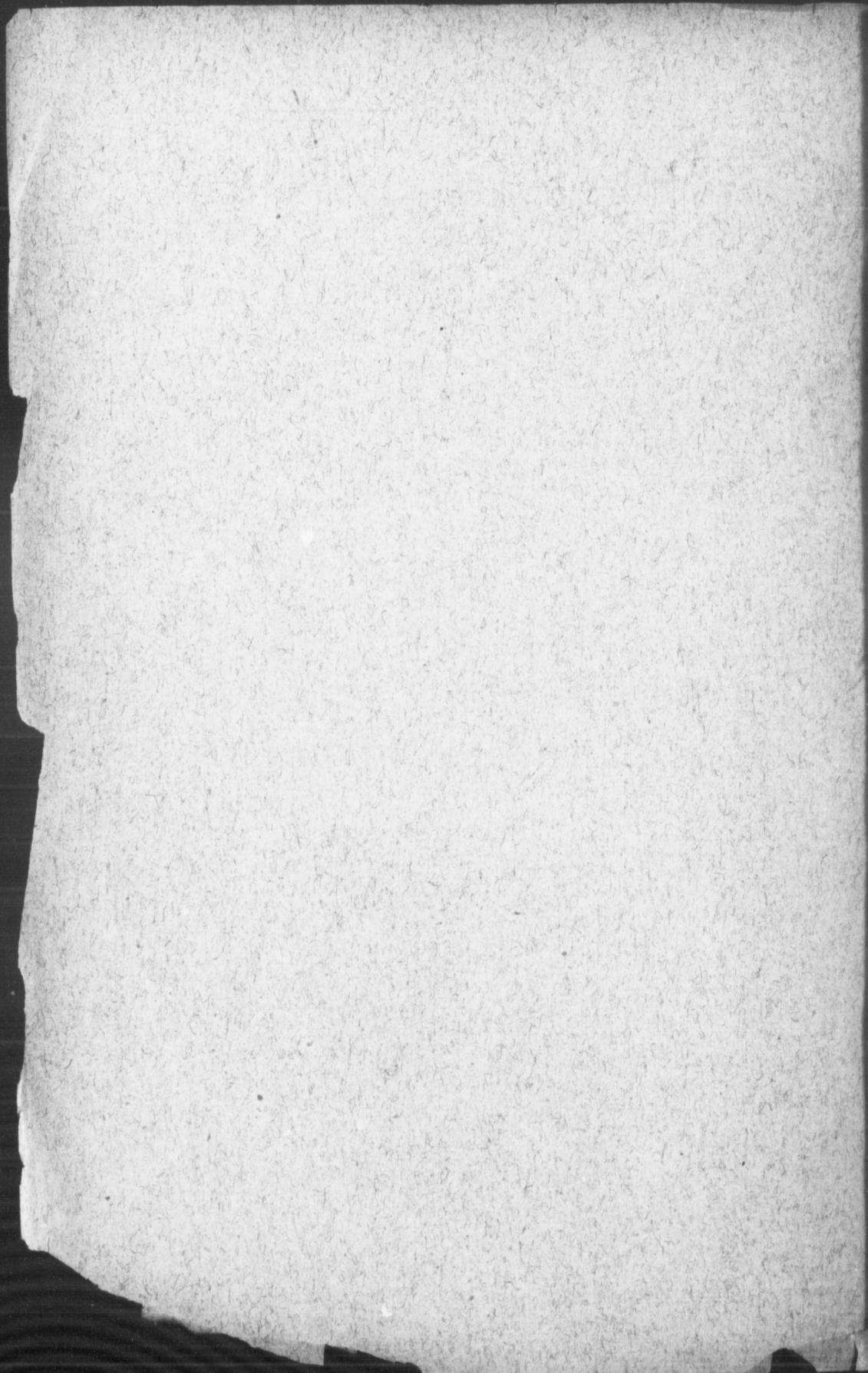


SEVENTEENTH ANNUAL REPORT

ISSUED JANUARY, 1st, 1896.

PRINTED BY ORDER OF THE DEPARTMENT OF AGRICULTURE
OF THE PROVINCE OF QUEBEC
BY THE
GAZETTE PRINTING COMPANY,
MONTREAL.

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R. MACKAY, - - - - - Hon. Vice-President.

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P. O. Box 778.

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ANNUAL EXHIBITION, SEPTEMBER, 1894.

AN EXCELLENT DISPLAY AT THE VICTORIA RINK—THE PROCEEDS FOR THE BENEFIT
OF THE HOSPITALS.

(*Montreal Gazette*, September 12, 1894.)

With something like 1,200 exhibits of products of the floral and vegetable kingdoms, aided by a large quantity of bunting and a hard-working committee, the Montreal Horticultural Society and Fruit Growers' Association of the Province of Quebec has succeeded in transforming the Victoria Skating Rink into what should certainly prove a very attractive and popular spot during the present week. It is the Society's annual exhibition, and that organization has undoubtedly done its share towards making the event a success. It now only remains for the flower-loving public, which may be said to include everybody, to show their appreciation of the Society's efforts to give them a first-rate exhibition. The show will remain open until Saturday, and, beyond the excellence of the exhibits, the Society may justly claim to be deserving of all patronage, for it has magnanimously decided to donate the gross proceeds of one day to the General and Notre Dame hospitals, half to each.

The prize money is the largest ever offered by the Society, and this has had the effect of bringing together, at least in the floral section, a display that has never been surpassed in the history of the organization.

From the roof of the rink depends an aggregation of bunting that, with the festoons of greenery that run from side to side of the building and adorn the galleries, produces an effect that is decidedly pleasing. The central portion of the floor is occupied with a grand display of ferns, foliage plants, and plants in bloom, the whole arranged in a manner well calculated to convey to the visitor the idea of walking through a magnificent garden. Surrounding these, and arranged on tables, are the cut blooms, fruit and vegetables. Taking first the floral section, which to the ordinary observer is the most attractive, it may be said that the collection is one which will delight the casual observer as well as the professional florist, the former by reason of its beauty and neatness of arrangement, and the latter by the excellence of the blooms and foliage, as well as the symmetry of the plants. It is a collection with which none but a pessimist would find fault. There is a good collection of crotons, all of them as showy as ever, and those who have a penchant for caladiums will find some fine specimens. The begonias—seedlings, tuberous and foliage—are a really excellent lot, and one that it would be hard to beat, being fine in both bloom and

foliage. Gloxinias are a good show, and of gladioli there is an admirable display, the spikes being almost uniformly good. There are some well-trained coleus, and the double geraniums are a nice collection. Fuchsias are good, both in bloom and symmetry, and of cacti, those most fantastic of tropical products, there is a nice lot. Asters are an attractive collection, and among the pansies and zinnias are some fine blooms, whilst single and double petunias make a good showing. One specimen of peculiar interest to all visitors will undoubtedly be that of *coccoloba pubescens*, of which is said that there are not more than three or four in the entire Dominion.

Vegetables are scarcely up to the average in quantity. Of apples there is a big display, and on the whole the fruit is of very good quality. Grapes, both out-door grown and those raised under glass, are small in quantity, but the bunches, especially of the latter, are very good. There are some fine tomatoes and a good collection of onions. Potatoes make a pretty good show, and "headed" vegetables are a fairly good lot.

PRIZE LIST.

- Sec. 1. Collection of plants, 106 square feet: Frank Roy, Mount Royal Cemetery Co., 1; Jules Betrix, gardener to Andrew Allan, 2.
- Sec. 2. Collection of plants, 50 square feet: F. Roy, 1; J. Betrix, 2; John Walsh, gardener to W. W. Ogilvie, 3; John Eddy, gardener to Mrs. Redpath, 4.
- Sec. 3. Adiantums: W. Wilshire, gardener to Mr. R. B. Angus, 1; F. Roy, 2; J. Betrix, 3.
- Sec. 4. Anthuriums in bloom: F. Roy, 1; W. Wilshire, 2; J. Walsh, 3.
- Sec. 5. American aloes (2): John Eddy, 1; C. A. Smith, gardener to T. A. Dawes, Lachine, 3.
- Sec. 6. American aloes, specimen: A. Pinoteau, Logan's Park, 1.
- Sec. 7. Begonias foliage: A. Pinoteau, 1; C. A. Smith, 2; H. W. Meyer, gardener to John Molson, 3.
- Sec. 8. Twelve Begonias Tuberos: Thomas McHugh, Forest and Stream Club, Dorval, 1; F. Roy, 2; George Trussel, gardener to J. H. R. Molson, 3.
- Sec. 9. Six Begonias Tuberos: F. Roy, 1; W. Wilshire, 2; A. Pinoteau, 3.
- Sec. 10. Six Caladiums: J. Betrix, 2; H. W. Meyer, 3.
- Sec. 12. Six Crotons: F. Roy, 1; W. Wilshire, 2.
- Sec. 14. One Cycas: A. Pinoteau, 1; J. Betrix, 2; John Walsh, 3.
- Sec. 15. Four Dracenas: F. Roy, 1; W. Wilshire, 2; George Copeland, Cote des Neiges, 3.
- Sec. 16. One Dracena: F. Roy, 1; George Copeland, 2; John Walsh, 3.
- Sec. 17. Six Ferns (tree ferns excluded): W. Wilshire, 1; F. Roy, 2; George Copeland, 3.
- Sec. 18. Three do.: F. Roy, 1; H. W. Meyer, 3.
- Sec. 19. One Fern specimen: F. Roy, 1; T. McHugh, 2; J. Betrix, 3.
- Sec. 20. One Tree Fern: J. Walsh, 2.
- Sec. 21. Six Fuchsias: T. Holder, gardener to Mr. James A. Cantlie, 1.
- Sec. 22. Three Fuchsias: T. Holder, 1.

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- Sec. 23. One Fuchsia : T. Holder.
- Sec. 24. Six Zonal geraniums : George Trussell, 1 ; F. Roy, 2.
- Sec. 25. Six Double Geraniums : George Trussell, 1 ; F. Roy, 2.
- Sec. 26. Three Tricolor and three Bronze Geraniums : George Trussell, 1 ; F. Roy, 3.
- Sec. 29. Ficus Elastica : F. Roy, 1 ; George Trussell, 3.
- Sec. 30. Ficus Elastica (variegata) : C. A. Smith, 2.
- Sec. 31. Hanging Basket of Plants : F. Roy, 1 ; A. Pinoteau, 2 ; P. A. Somerville, 3.
- Sec. 32. Hanging Basket of Ferns : C. A. Smith, 1 ; John Eddy, 2 ; A. Pinoteau, 3.
- Sec. 33. Lygodium Scandens : George Copeland, 1 ; John Walsh, 2.
- Sec. 35. One Maranta : J. Wilshire, 1 ; F. Roy, 2.
- Sec. 36. Nepenthes three : F. Roy, 3.
- Sec. 37. Nepenthes one : F. Roy, 2.
- Sec. 38. Three Orchids in bloom : F. Roy, 2 ; W. Wilshire, 3.
- Sec. 39. One Orchid : F. Roy, 1 ; W. Wilshire, 2.
- Sec. 40. Six Palms : W. Wilshire, 1 ; John Walsh, 2.
- Sec. 41. Three Palms : W. Wilshire, 1 ; T. Holder, 2 ; F. Roy, 3.
- Sec. 42. Six Palms (not larger than six-inch pots) : F. W. Mayer, 1 ; F. Roy, 2.
- Sec. 43. Specimen Plant : H. W. Meyer, 1 ; John Walsh, 2 ; T. Holder, 3.
- Sec. 44. Vase Plants : F. Roy, 1 ; George Trussell, 2 ; B. T. Graves, Cote St. Antoine, 3.
- Sec. 45. Five Plants for Table Decoration : W. Wilshire, 1 ; F. Roy, 2 ; H. D. Mayer, 3 ; John Walsh, 4.
- Sec. 46. Six Pans of Selaginella : George Copeland, 1 ; C. A. Smith, 2 ; F. Roy, 3.
- Sec. 47. Specimen Green-house Plant in bloom : T. Holder, 1 ; F. Roy, 2.
- Sec. 48. Green-house Foliage Plants : W. Wilshire, 1 ; F. Roy, 2 ; H. W. Mayer, 3.
- Sec. 49. Green-house Foliage Plant : F. Roy, 1 ; H. W. Mayer, 3.
- Sec. 50. Three French Cannas : F. Roy, 1 ; J. Betrix, 3.
- Sec. 51. One French Canna : F. Roy, 3.
- Sec. 55. One Green-house Climbing Plant in bloom : J. Walsh, 2 ; J. Betrix, 3.
- Sec. 56. Six Coleus : George Trussell, 1 ; B. T. Graves, 2 ; F. Roy, 3.
- Sec. 57. Three Coleus : George Trussell, 1 ; F. Scott, jr., 2 ; B. T. Graves, 3.
- Sec. 60. Collection of Cacti and Succulents : A. Pinoteau, 1 ; F. Roy, 2 ; B. T. Graves, 3.
- Sec. 89. Selection of Apples (25 varieties) : R. W. Shepherd, jr., 1 ; A. Knight, Cataraqui, 2 ; Charles Grave, Cataraqui, 3 ; G. B. Edwards, Covey Hill, 4 ; R. Jack, Chateauguay, 5.
- Sec. 90. Collection of Russian Apples : R. Hamilton, Grenville, 1.
- Sec. 91. Apples, one variety new seedling : Geo. B. Edwards, 1 ; Thos. Scott, jr., 2 ; R. Jack, 3.

- Sec. 92. Apples, three summer, three fall, three early winter and three late winter: R. W. Shepherd, jr., 1; Malcolm Smith, Lachine, 2; R. Jack, 3; R. Hamilton, 4; G. B. Edwards, 5.
- Sec. 93. Six Apples for commercial purposes: R. W. Shepherd, jr., 1; Geo. B. Edwards, 2; A. Ducharme, St. Paul's, Abbotsford, 3; R. Jack, 4.
- Sec. 94. Apples, fameuse: Malcolm Smith, 1; James Coupland, Shefford Mountain, 2; R. W. Shepherd, jr., 3; R. Jack, 4.
- Sec. 95. Apples, St. Lawrence: Malcolm Smith, 1; R. Jack, 2; R. W. Shepherd, jr., 3; James Coupland, 4.
- Sec. 96. Apples, Duchess: Malcolm Smith, 1; A. Ducharme, 2; R. W. Shepherd, jr., 3; James Robson, 4.
- Sec. 97. Apples, wealthy: James Robson, 1; B. W. Shepherd, jr., 2; James Coupland, 3; R. Jack, 4.
- Sec. 98. Apples, Alexander: George B. Edwards, 1; James Robson, 2; A. Ducharme, 3.
- Sec. 99. Apples, Bethel: J. Robson, 1.
- Sec. 101. Blue Pearmain's: George B. Edwards, 1; W. B. Davidson & Son, Cote St. Paul, 2.
- Sec. 102. Apples, Canada Baldwin: R. W. Shepherd, jr., 1; James Coupland, 2; W. B. Davidson & Sons, 3.
- Sec. 103. Apples, Golden Russett: A. Ducharme, 1; George B. Edwards, 2; R. Jack, 3.
- Sec. 104. Apples, Peach of Montreal: Malcolm Smith, 1, R. W. Shepherd, jr., 2; R. Hamilton, 3.
- Sec. 105. Apples, Pewaukee: James Coupland, 1; R. Jack, 2; George B. Edwards, 3.
- Sec. 106. Apples, Pommes Grises: W. M. Ramsay, Merchants' Bank, 1; R. Jack, 2; George Trussell, 3.
- Sec. 108. Apples, Strawberry of Montreal: G. B. Edwards, 1; W. Rawlings, 2; W. B. Davidson & Sons, 3.
- Sec. 109. Apples, winter, St. Lawrence: James Coupland, 1; R. W. Shepherd, jr., 2.
- Sec. 110. Apples, yellow, transparent: James Robson, 1; James Coupland, 2; Geo. B. Edwards, 3.
- Sec. 111. Apples, Jonathan: G. B. Edwards, 1.
- Sec. 112. Apples, any other variety: R. W. Shepherd, jr., 1; W. M. Ramsay, 2; Malcolm Smith, 3.
- Sec. 113. Five Crab Apples: R. W. Shepherd, jr., 1; Geo. B. Edwards, 2.
- Sec. 114. One Crab Apple: W. M. Ramsay, 1; R. W. Shepherd, jr., 2.
- Sec. 115. Shipping Case, illustrating best method of packing apples for exportation: R. W. Shepherd, jr., 1.
- Sec. 116. Six Pears: J. Betrix, 1; John Eddy, 2; Geo. Trussell, 3.
- Sec. 117. Three varieties of Pears: J. Eddy, 1; J. Betrix, 2; G. Pasco, gardener to R. Reford, 3.

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& Sons.

- Sec. 118. One variety Pears : George Trussell, 1 ; John Eddy, 2 ; W. W. M. Ramsay, 3.
- Sec. 119. Plums, six varieties : B. T. Graves, 1 ; W. B. Davidson & Sons, 2 ; W. M. Ramsay, 3.
- Sec. 120. Three varieties Plums : B. T. Graves, 1 ; R. Jack, 2 ; T. Scott, jr., 3.
- Sec. 121. One variety Plums : B. T. Graves, 1 ; W. B. Davidson & Sons, 2 ; W. M. Ramsay, 3.
- Sec. 122. Plums, wild, of P. Q. : R. Hamilton, 1.
- Sec. 123. Plums, wild, of N. W. States : R. Hamilton, 1 ; R. W. Shepherd, jr., 2.
- Sec. 124. Basket of Fruit for Dessert : J. Betrix, 1 ; J. Eddy, 2 ; Geo. Trussell, 3 ; R. Jack, 4.
- Sec. 125. Basket of Out-door Fruits : T. Hall & Son, 1 ; John Eddy, 2 ; J. Betrix, 3 ; Geo. Trussell, 4.
- Sec. 126. Grapes, out-door, eight varieties : W. M. Patterson, Clarenceville, 1 ; B. T. Graves, 2 ; Robt. Reid, Outremont, 3.
- Sec. 127. Grapes, out-door, four varieties : R. Reid, 1 ; R. Jack, 2 ; W. M. Patterson, 3 ; John Eddy, 4.
- Sec. 128. Grapes, out-door varieties, white : R. Jack, 1 ; W. M. Patterson, 2.
- Sec. 129. Grapes, out-door, two varieties, black : W. M. Patterson, 1 ; R. Jack, 2.
- Sec. 130. Grapes, out-door, two varieties, red : W. M. Patterson, 1 ; R. Jack, 2.
- Sec. 131. Grapes, out-door, any variety, heaviest bunch : R. Reid, 1 ; R. Jack, 2.
- Sec. 132. Grapes, out-door, heaviest bunch, black : R. Jack, 1 ; W. M. Patterson, 2.
- Sec. 133. Grapes, out-door, heaviest bunch, red : R. Reid, 1 ; W. M. Patterson, 2.
- Sec. 134. Grapes, out-door, heaviest bunch, white : R. Jack, 1 ; R. Reid, 2.
- Sec. 135. Grapes, in-door, six varieties : J. McGuire, gardener to John Molson, 1 ; J. Betrix, 2.
- Sec. 137. Grapes, two white : J. Betrix, 1.
- Sec. 138. Grapes, in-door, two black Hamburg : J. Betrix, 1 ; J. McGuire, 2.
- Sec. 139. Do., any variety : J. Betrix, 1.
- Sec. 141. Nectarines : J. Betrix, 1.
- Sec. 142. Peaches, six varieties : J. Betrix, 1.
- Sec. 143. Peaches, best plate : J. Betrix, 1 ; J. Eddy, 2.
- Sec. 144. Water Melons : H. W. Mayer, 1 ; W. B. Davidson & Sons, 2.
- Sec. 155. Melon Musk : Thos. Hall & Sons, 1 ; F. Roy, 2 ; George Trussell, 3 ; Ignace Morand, Cote des Neiges, 4 ; W. B. Davidson & Sons, 5.
- Sec. 156. Melon Musk, best new variety : I. Morand, 1 ; F. Roy, 2 ; W. B. Davidson & Sons, 3.
- Collection of cut bloom, grown outside : 1, F. Roy, M. R. Cemetery Co. ; 2, W. B. Davidson & Sons, Cote St. Paul ; 3, Geo. Trussell, gardener to J. H. R. Molson, Esq. ; 4, John B. Goode, Cote St. Antoine ; 5, R. Jack, Chateauguay.
- Asters, 24 blooms : 1, John B. Goode ; 2, W. J. Wilshire, gardener to R. B. Angus ; 3, Geo. Trussell ; 4, T. B. Bond, gardener to A. A. Ayer ; 5, W. B. Davidson & Sons.

- Asters, 12 blooms: 1, John B. Goode; 2, W. B. Davidson & Sons; 3, G. Pascoe, gardener to Robert Reford, Esq.; 4, Geo. Trussell.
- Dahlias, single: 1, John Walsh, gardener to W. W. Ogilvie, Esq.
- Dahlias, single 12: 1, John Walsh; 2, C. A. Smith, gardener to T. A. Dawes, Esq.
- Dianthus, collection of 24 blooms: 1, T. B. Graves; 2, W. B. Davidson & Sons.
- Gladioli, 12 spikes: 1, F. Roy (best but not dissimilar, disqualified); 2, A. Pinoteau, city gardener; 3, B. T. Graves.
- Gladioli, 6 spikes: 1, F. Roy; 3, A. Pinoteau.
- Gladioli, 3 spikes: F. Roy.
- Pansies, 24: 1, T. B. Graves; 2, W. M. Ramsay, Merchants' Bank.
- Pansies, 12: 1, C. D. Smith; 2, B. T. Graves; 3, W. M. Ramsay.
- Petunias, single: 1, F. Roy; 2, A. Pinoteau; 3, Geo. Copeland.
- Petunias, double: 1, Geo. Trussell; 2, C. D. Smith.
- Phlox Drummondi: 1, H. W. Mayer, gardener to John Molson, Esq.; 2, B. T. Bond; 3, C. A. Smith.
- Phlox, perennial: 1, F. Roy; 2, B. T. Graves.
- Sweet Peas: 1, B. T. Graves; 2, John Eddy, gardener to Mrs. Redpath; 3, A. Pinoteau; 4, R. Hamilton, Grenville; 5, G. Pascoe.
- Zinnias: 1, Geo. Trussell; 2, John B. Goode; 3, F. Roy.
- Hollyhocks: 1, Geo. Trussell; 2, F. Roy.
- Canna: 1, F. Roy; 2, B. T. Graves; 3, J. Betrix.
- Verbenas: 1, A. Pinoteau; 2, John B. Goode; 3, J. M. Nelson, Cote St. Antoine.
- Basket of cut flowers: 1, W. B. Davidson & Sons; 2, A. Pinoteau; 3, George Trussell.
- Vase or epergne with cut flowers: 3, W. B. Davidson & Sons.
- Vase of Roses: 1, Geo. Trussell; 2, W. B. Davidson & Sons.
- Vase of Marguerite Carnations: 1, J. Betrix; 2, W. B. Davidson & Sons.
- Vase of Marguerite Carnations: 1, J. Betrix; 2, W. B. Davidson & Sons; 3, B. Graves.
- Vase of out-door grown cut flowers: 1, George Trussell; 2, W. B. Davidson & Sons.

VEGETABLES.

- Artichokes, Jerusalem: 1, T. Westlake, gardener to A. J. Dawes; 2, M. Ignace Morand, Cote des Neiges Colleges.
- Beets, turnip, blood: 1, T. Westlake; 2, G. Trussell; 3, R. Jack, Chateauguay.
- Beets, long blood: 1, G. Trussell; 2, T. Hall & Sons; 3, T. Bond.
- Beans, Lima: 1, M. Morand; 2, G. Trussell; 3, C. T. Smith, Amherst street.
- Beans, kidney, yellow, podded: 1, G. Trussell; 2, W. Rawlings, 41 Simpson street.
- Beans, kidney, green, podded: 1, M. Morand; 2, G. Trussell; 3, T. Westlake.
- Borecole (Kale): 1, M. Morand; 2, F. Roy.
- Brussels Sprouts: 1, M. Morand; 2, F. Roy.

Cabbag
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Cabbag
Carrot
son & Sons.
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Celery,
Sons.
Celery,
C. A. Smith
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Potatoe
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Potatoes
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Radishes
Westlake.
Lettuce,
Trussell.
Lettuce,
Parsley:
Salsify:
Tomatoe
Tomatoe
Tomatoe
Turnips,
Turnips,
Squash, v
Squash, I

- Cabbage, winter: 1, F. Roy; 2, M. Morand.
 Cabbage, red: 1, F. Roy; 2, M. Morand.
 Cabbage, savory: 1, M. Morand; 2, F. Roy.
 Carrots, half long: 1, John Nesbitt, Petite Côte; 2, G. Trussell; 3, W. B. Davidson & Sons.
 Cauliflowers, three heads: 1, T. Hall & Sons; 2, W. B. Davidson & Sons; 3, C. T. Smith; 4, F. Roy.
 Cauliflower, 1 head: 1, G. Trussell; 2, C. T. Smith; 3, T. Hall & Sons; 4, W. B. Davidson & Sons.
 Cucumber: 1, T. Westlake; 2, W. B. Davidson & Sons.
 Celery, white: 1, T. Hall & Sons; 2, M. Morand; 3, T. Westlake; 4, C. A. Smith.
 Celery, red: 1, M. Morand; 2, C. A. Smith; 3, F. Roy; 4, W. B. Davidson & Sons.
 Celery, yellow: 1, T. Westlake; 2, W. B. Davidson & Sons; 3, M. Morand; 4, C. A. Smith.
 Corn, sweet: 1, T. B. Bond; 2, G. Trussell; 3, M. Morand.
 Egg Plants: 1, C. T. Smith; 2, M. Morand.
 Egg Plants: 1, J. Betrix; 2, M. Morand.
 Leeks: 1, M. Morand; 2, T. Hall & Sons; 3, F. Roy.
 Onions, six varieties: 1, T. Hall & Sons; 2, G. Trussell; 3, F. Roy.
 Onions, red: 1, T. Hall & Sons; 2, C. A. Smith; 3, G. Trussell; 4, M. Morand.
 Onions, yellow: 1, T. Hall & Sons; 2, C. A. Smith; 3, G. Trussell; 4, F. Roy.
 Onions, white: 1, T. Hall & Sons; 2, F. Roy; 3, G. Trussell; 4, M. Morand.
 Parsnips: 1, T. Hall & Sons; 2, B. T. Bond; 3, T. Westlake.
 Peas: 1, G. Trussell; 2, F. Roy; 3, T. Westlake.
 Peppers: 1, M. Morand; 2, G. Trussell; 3, C. A. Smith.
 Potatoes, collection: 1, M. Morand; 2, G. Trussell; 3, T. Scott, Jr., St. Laurent; 4, T. Hall & Sons.
 Potatoes, three varieties: 1, M. Morand; 2, G. Trussell; 3, T. Scott, Jr.
 Pot Herbs: 1, M. Morand; 2, W. B. Davidson & Sons; 3, G. Trussell.
 Radishes: 1, W. M. Ramsay; 2, J. M. Nelson, Cote St. Antoine; 3, T. Westlake.
 Lettuce, cabbage: 1, James Robson, Outremont; 2, T. Hall & Sons; 3, G. Trussell.
 Lettuce, cos—1, W. B. Davidson & Sons; 2, G. Trussell.
 Parsley: 1, G. Trussell; 2, M. Morand.
 Salsify: 1, B. T. Bond; 2, C. A. Smith; 3, Geo. Trussell.
 Tomatoes, three varieties: 1, C. T. Smith; 2, G. Trussell; 3, C. A. Smith.
 Tomatoes, red: 1, Geo. Trussell; 2, C. A. Smith.
 Tomatoes, yellow: 1, C. A. Smith; 2, Geo. Trussell.
 Turnips, white: 1, M. Morand; 2, John Nesbitt; 3, C. A. Smith.
 Turnips, yellow: 1, M. Morand; 2, Geo. Trussell; 3, W. B. Davidson & Sons.
 Squash, vegetable marrow: 1, W. B. Davidson & Sons; 2, G. Trussell.
 Squash, Hubbard: 1, M. Morand; 2, G. Trussell.

Squash, best table: 1, Geo. Trussell; 2, M. Morand.

Vegetables, collection: 1, T. Hall & Sons; 2, W. B. Davidson & Sons; 3, C. A. Smith.

AMATEUR DEPARTMENT—PLANTS.

Six plants in bloom: 1, H. Whitman, city; 2, T. W. Burdon; 3, T. Scott, Jr.

Three plants in bloom: 1, T. W. Burdon; 2, Robert Reid, Outremont; 3, W. M. Ramsay.

One plant in bloom: 1, A. Ducharme, St. Paul, Abbotsford; 2, H. Whitman; 3, T. W. Burdon.

Musk: 1, W. M. Ramsay.

Abutilon: 1, H. Whitman; 2, T. W. Burdon; 3, W. M. Ramsay.

Hydrangea: 1, H. Whitman; 2, P. A. Somerville, 47 Mayor street

Balsam: 2, H. Whitman; 3, W. M. Ramsay.

Aster: 1, H. Whitman; 2, W. M. Ramsay.

Fuschias: 1, T. W. Burdon; 2, T. Scott, Jr.; 3, H. Whitman.

Geraniums: 1, H. Whitman; 2, R. Reid; 3, W. M. Ramsay.

Tuberous begonias: 1, T. W. Burdon; 2, P. A. Somerville; 3, Robt. Reid.

Six plants, foliage: 1, T. W. Burdon; 2, H. Whitman; 3, W. M. Ramsay.

Three plants, foliage: 1, T. W. Burdon; 2, P. A. Somerville; 3, W. M. Ramsay.

One plant, foliage: 1, T. W. Burdon; 2, H. Whitman; 3, Thos. Scott, Jr.

Coleus: 1, H. Whitman; 2, T. W. Burdon; 3, W. M. Ramsay.

Fern: 1, T. W. Burdon; 2, W. M. Ramsay; 3, H. Whitman.

Ivy: 1, T. W. Burdon; 2, H. Whitman.

CUT BLOOM, BOUQUETS, &c.

Annuals collection: 1, W. M. Ramsay; 2, J. M. Nelson; 3, R. Jack.

Asters: 1, John B. Goode; 2, W. M. Ramsay; 3, J. M. Nelson.

Bouquet, or bunch of flowers: 1, A. P. Somerville; 2, W. M. Ramsay; 3, T. W. Burdon.

Cut flowers, vase or epergne: 1, T. W. Burdon.

Gladioli: 1, W. M. Ramsay; 2, A. P. Somerville.

Pansies, eighteen: 1, W. M. Ramsay; 2, J. M. Nelson; 3, R. Reid.

Pansies: 1, W. M. Ramsay; 2, R. Reid; 3, John B. Goode.

Dianthus: 1, W. M. Ramsay.

Verbenas: 1, R. Hamilton, Grenville; 2, W. M. Ramsay.

Petunias, double: 1, W. M. Ramsay.

Petunias, single: 1, John B. Goode; 2, W. M. Ramsay; 3, H. Whitman.

Phlox, Drummond: 1, John B. Goode.

Sweet Peas: 1, John M. Nelson; 2, R. Jack.

Zinnias: 1, John B. Goode.

FRUITS AND VEGETABLES.

Apples, three varieties, dessert: 1, Malcolm Smith, Lachute; 2, W. M. Ramsay, 3, Robt. Reid.

Apples,
Grapes,
Grapes,
Pears:
Plums:
Smith.
Corn, sv
Tomato
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Apples, one variety: 1, Robt. Reid; 2, A. Ducharme; 3, W. M. Ramsay.

Grapes, five varieties: 1, Robert Reid.

Grapes, best bunch of any kind: 1, R. Reid; 2, P. A. Somerville.

Pears: 1, W. M. Ramsay; 2, R. Reid; 3, W. Rawlings.

Plums: 1, C. E. T. Woodley, Cote St. Antoine; 2, W. M. Ramsay; 3, Malcolm Smith.

Corn, sweet: 1, John M. Nelson, 2, W. M. Ramsay.

Tomatoes: 1, W. M. Ramsay; 2, John M. Nelson.

Onions: 1, W. M. Ramsay; 2, John M. Nelson.

Carrots: 1, John M. Nelson; 2, W. M. Ramsay.

Beets: 1, W. M. Ramsay; 2, A. Ducharme.

Celery: 1, W. M. Ramsay.

Parsnips: 1, W. M. Ramsay.

Lettuce, cabbage: 1, W. M. Ramsay.

Beans: 1, W. M. Ramsay; 2, John M. Nelson.

Peas, green: 1, John M. Nelson; 2, W. M. Ramsay,

DIPLOMAS AND SPECIAL PRIZES.

Groups of fuchsias, exhibited by T. Holder, gardener to Mr. James A. Cantlie, diploma and special prize.

Musa Ensete (Abyssinian banana), exhibited by John Eddy, gardener to Mrs. Redpath.

Bed of tuberous begonias, exhibited by F. Roy, gardener to Mount Royal Cemetery Company.

Table of seedling tuberous begonias, exhibited by T. McHugh, Forest and Stream Club, Dorval.

Group of geraniums, group of dracenas, and group of crotons achimenes, etc.; also collection of nepenthes, all exhibited by F. Roy, Mount Royal Cemetery Co.

A superb collection of indoor grapes, exhibited by George McWilliam, gardener to Mrs. Josiah Lasell, Whittinsville, Mass.

Spikes of a magnificent new seedling French canna, exhibited by James S. Cowles, Newport, R. I.

A collection of apples, nine varieties, and six varieties crab apples, grown by the Rev. Canon Fulton, St. Vincent de Paul, having been received too late for entry in the competition, the judges awarded them a special prize, all being magnificent specimens

ANOTHER DESCRIPTION OF THE 1894 EXHIBITION.

The directors and exhibitors have completely eclipsed any previous effort in this season's exhibition. The Victoria Skating Rink was changed into a palace of enchanting beauty and taste by the decorations and skilful arrangement of the specimens; neither pains or art were spared to render the show attractive and refining in its influences, and a scene of beauty was produced which could scarcely be surpassed. At every turn some new effect greeted the eye of the beholder, and the whole was admirable beyond expression. When critically examined in detail, the specimens exhibited showed that in most cases the utmost limit of good cultivation had been reached. The plants, too, were of the rarest species, and such as none but men highly advanced in their profession could have produced in such perfection.

The city of Montreal has advanced during the last fifteen years in every respect, until it has few rivals for architecture, educational institutions, convenience of travel, condition of its streets, beauty of its squares, and delightful suburbs, and not least as regards its horticulture.

The Exhibition just closed was sufficient to prove that horticulturists are by no means behind in the march of improvement, and form a class of men of which the citizens may be proud.

To single out an individual, when all have united in acting their parts so energetically and successfully, might be considered invidious; nevertheless, it is due to one gentleman, Mr. F. Roy, of Mount Royal Cemetery, to chronicle that he has the credit, among his compeers, of having contributed, by his indefatigable exertions and executive ability, in the greatest degree, to bring about so marked and impressive a result.

Of course he was ably backed and assisted by the President, David Williamson, Esq.; the Vice-President, W. M. Ramsay, Esq.; the Directors, Messrs. John Doyle, Jules Betrix, John Eddy, John Walsh, Geo. Trussell, F. Roy, Joseph Bennett, and the enthusiastic and attentive Secretary-Treasurer, Thomas Williamson, Esq. To all these gentlemen the public are indebted, and the meed of praise is also due to the exhibitors, without whom their designs could not have been carried into effect.

The principal of these were: Plants, etc., Messrs. F. Roy, Jules Betrix, W. J. Wilshire, John Walsh, F. McHugh, C. A. Smith, H. Meyer, A. Pinoteau, J. Eddy, etc. Fruit—R. W. Shepherd, jr., Como; M. Edward, Covey Hill, Huntingdon Co.; Robson, Smith, Lachute; W. B. Davidson, Cote St. Paul, etc. Cut flowers and vegetables—George Trussell, W. B. Davidson, W. Ramsay, T. Hall & Son, B. Graves, C. Smith. Amateur class—Messrs. Ramsay, Somerville, Burden and others.

Now, as to the public, it is grievous to have to remark, that after all the efforts

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made to advertise, in spite of the excellent press notices, and the numerous means by which the holding of the Exhibition was made known, the attendance was not so large as could have been desired.

Alas! that such should be the case, and that a thirst for sensational and, too often, depraving pastimes, should be more popular than such a refining, elevating, and educational means of amusement as that offered by the gardeners and their friends. What better use of the public money could be made than by assisting an association whose object is to build up a better moral sentiment in society. And surely that class of the population who, as individuals, have the same end in view, should give it their countenance and support, rather than to those whose chief end and aim are to make a profit, and who introduce immoral, vitiating or debasing shows and amusements along with the legitimate part of the Exhibition, for the purpose of drawing a crowd, whereby to replenish their exchequer.

GEORGE MOORE, Quebec.

MINUTES OF ANNUAL MEETING HELD 8TH DECEMBER, 1894.

Present: D. Williamson, President, in the chair; F. Roy, T. Hall, W. O. Roy, W. M. Ramsey, Geo. Trussell, J. Doyle, J. Betrix, J. Walsh, T. W. Burdon, H. W. Mayer, T. J. Gorman, J. Holiday, W. Woodhall, W. Evans, jr., R. Hamilton, J. McKenna, R. W. Shepherd, jr., W. Horabin and T. Williamson, Secretary-Treasurer.

The minutes of the previous annual meeting were read and adopted.

The Secretary-Treasurer read his reports for the year which were adopted and ordered to be printed for circulation among the members.

The resolution of the Directors' meeting of 29th November, conferring power on the Board to elect honorary life members under certain conditions was unanimously confirmed.

The recommendation in the Report to introduce a Juvenile Department at a reduced membership fee and provide each of the members with a plant in pot, was very favourably received. The principle was endorsed and the details left in the hands of the new Board.

The meeting then elected the following officers:—Hon. President, W. W. Ogilvie; Hon. Vice-President, Robert Mackay; Directors, D. Williamson, G. Trussell, F. Roy, J. Betrix, W. M. Ramsay, J. Doyle, J. Walsh, J. Bennett, and Tom Hall.

The Secretary reported that a committee of the Board had revised the Constitution and Bye-Laws, and had adopted certain amendments, which were read to the meeting and notice given that a meeting would be held on Saturday, 15th December, to consider the amendments.

The following Library Committee were appointed for the year, viz.:—W. M. Ramsay, J. Eddy, W. O. Roy, J. McKenna and W. Evans, jr.

Messrs. Riddell and Common were re-elected Auditors for the coming year.

Annual Report of the Secretary-Treasurer of the Montreal Horticultural Society and Fruit-Growers' Association, P. Q., for year ended 30th Nov., 1894.

RECEIPTS.

Cash in Bank 1st December, 1893	\$ 212 97
Government Grant	1,000 00
Subscriptions from members.....	744 00
Special Subscriptions, viz.:—	
Mrs. J. McDougall.....	\$25 00
Sir Donald A. Smith	50 00
W. W. Ogilvie, Hon.-Pres	25 00
Robert Mackay, Vice-Pres	25 09
D. Williamson, President.....	50 00
W. M. Ramsay, Vice-Pres.....	25 00
F. Roy.....	25 00
Wm. Ewing	25 00
Wm. Evans.....	25 00
Warden King.....	20 00
Hon. John S. Hall	10 00
H. Montagu Allan.....	10 00
D. Morrice	10 00
W. C. McDonald	10 00
A. A. Ayer	10 00
James Morgan	10 00
G. Cheney.....	10 00
J. Moore	10 00
A. Joyce	10 00
Montreal Witness.....	10 00
Stone & Wellington	10 00
J. Currie.....	5 00
W. Woodhall	5 00
R. Reid.	5 00
W. Paul.....	5 00
R. Mitchell.....	5 00
Geo. Hague.....	5 00
W. Mann.....	3 00
Directors and Secretary.....	40 00
Life Membership Fees.....	478 00
Receipts at September Exhibition.....	10 00
Entries at Exhibition.....	371 25
Balance due Treasurer.....	4 50
	51 36
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	\$2,872 08

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PAYMENTS.

Rent.....	\$ 67 50
Salaries.....	300 00
Expenses of Conservatory openings.....	63 00
Expenses of Report.....	91 94
Expenses of Exhibition.....	703 30
Prizes at Exhibition.....	1,457 75
Periodicals.....	1 00
Commission collecting subscriptions.....	74 20
Insurance.....	4 70
Printing, Advertising and Stationery.....	56 54
General Office Expenses.....	52 15
	<u>\$2,872 08</u>

Audited by A. F. RIDDELL, Chartered Accountant.

The present financial position of the society is as follows:—

ASSETS.

Twenty-two Members' Subscriptions, considered good.....	44 00
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LIABILITIES.

Balance due Treasurer.....	51 36
Due to General and Notre Dame Hospitals, being proceeds of last day of Exhibition.....	37 50
	<u>88 86</u>
Deficit.....	<u>\$44 86</u>

MEMBERSHIP.—The receipts from this source were \$744. If we add the amount of \$44 for subscriptions yet to come in we have \$788, an increase of \$32 over last year. In a city like Montreal we can hardly feel satisfied with this result; and a vigorous effort should be made by the incoming board to improve upon it.

SPECIAL SUBSCRIPTIONS.—It will be seen from the accounts that the Board again realized a large amount of revenue from this source. The amount contributed was \$478—a slight increase over last year, and the thanks of the Society are due to the lady and gentlemen who so generously assisted us.

CONSERVATORY OPENINGS.—Through the courtesy of the owners the following conservatories were opened to members of the society and friends during the winter, viz.:

Sir Donald A. Smith, February 17, 24, March 17.

Lord Mount Stephen, February 24, March 10.

Late Sir John C. Abbott, February 24, March 10, 24.

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Mrs. Redpath, February 24, March 3.
 W. W. Ogilvie, February 10, 17, 25, March 3
 Mrs. Robertsen, February 17, 24, March 17.
 Andrew Allan, February 10, 17, March 10.
 H. Montagu Allan, March 10, 31.
 Late Jas. Burnett, February 17, March 3, 17.
 R. B. Angus, February 10, 24, March 10.
 Wm. McGibbon, March 10, 24, 31.
 Montreal Cemetery, March 3, 10, 17, 24, 31.

Registers were provided for the use of visitors, and the names recorded show that the privilege was largely taken advantage of.

EXHIBITION.—The annual Exhibition was held September 11th to 15th, in the Victoria Skating Rink. The value of prizes offered for competition was \$1,800, and the amount actually paid \$1,447.75, the largest sum in the history of the Society. The number of exhibitors was 50 and entries 1,174. Of these 174 were in the amateur department. Compared with last year this shows an increase of nearly 50 per cent. in this department, which is an especially gratifying feature. The special feature of the exhibition was again the magnificent display of decorative and flowering plants. The exhibit of fruit was smaller than usual, but of a high class. Vegetables were about the same as usual; cut bloom was well represented, but the exhibits of baskets, bouquets, etc., left much to be desired. The judges, especially in the plants department, exercised much judgment in excluding from awards specimens of inferior quality. This course is to be commended, as only in this way can the society arrive at a high standard of excellence in its exhibitions. The receipts at the door amounted to \$371.25, which was certainly disappointing, and much below our expectations. However there is a crumb of comfort in the fact that even this small amount is greater by 28 per cent. than the average for the last five years in the rink. The following diplomas were awarded by order of the Judges and the Board of Directors:—To T. Holden, Gardener to Jas. A. Cantlie, for group of Fuchias; to John Eddy, Gardener to Mrs. Redpath, for specimens of *Musa Ensete* (Abyssinian Banana); to F. Roy, Superintendent Mount Royal Cemetery, for general excellence of his exhibit; to T. McHugh, Gardener Forest and Stream Club, Dorval, for Table Seedling Tuberos Begonias; to George McWilliam, Gardener to Mrs. Josiah Lasell, Whitinsville, Mass., for a magnificent collection of Indoor Grapes, and to James S. Cowles, Newport, R. I., for new seedling French Cannas.

REPORT.—Early in the year was issued the sixteenth report of the Society, containing many valuable papers in all departments of fruit growing and horticulture. The thanks of the Society are due to the gentlemen who so kindly furnished the articles, and especially to the Gardeners' and Florests' Club of this city, who gave us many valuable papers.

JOURNAL OF AGRICULTURE.—At the beginning of the year permission was obtained from the Department of Agriculture to edit a portion of the Journal as a Horticulture Department; and arrangements were made to have it sent regularly to

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every member of the Society. The work of editing this department was entrusted to one of your directors, Mr. Frank Roy, and I am sure the thanks of the Society are due in an especial manner to that gentleman for the able and practical manner in which he has performed that work, and also for his untiring and successful efforts as Chairman of the Exhibition Committee. It is to be hoped that the incoming Board will carry on the good work that has been commenced in the Journal of Agriculture.

FRUIT ADVISORY BOARD.—Through the assistance of the members of the Provincial Parliament we have established a Fruit Advisory Board, comprising 28 members in all parts of the Province. This Board is established for the purpose of collecting information, and for the interchange of ideas and experiments in all departments of fruit growing—but more especially apple culture. We were enabled to send them through the Experimental Farm in Ottawa various specimens of fruit trees, and have now sent each of them a circular letter containing questions as to the results of their experiments with these and as to their experience of, and information collected during the fruit season just ended. The replies to these questions will be tabulated and published in the next report.

HONORARY LIFE MEMBERS.—At a recent meeting it was resolved, subject to the approval of this meeting, that the Directors may, by a unanimous vote, elect as honorary life member any person who has rendered exceptional service to, or conferred exceptional benefit upon the Society—such to have all the privileges of ordinary members. In accordance with this resolution (always subject to the approval of the annual meeting) the Directors appointed as honorary life members the following, viz.:—Sir Donald A. Smith, W. W. Ogilvie, Robert Mackay, James Morgan, Wm. Evans, Wm. Ewing, Warden King, John Dougall, of *Witness*; Hugh Graham, of *Star*; G. Cheney and Mrs. John McDougall.

JUVENILE DEPARTMENT.—At the last meeting of the Directors it was resolved, on the motion of Mr. Roy, to recommend to the incoming Board the advisability of establishing a Juvenile Department with a reduced membership fee; and in order to promote the success of the scheme to supply each of the juveniles with a plant in pot—say a tuberous begonia, with printed instructions how to grow it, and to offer prizes at the annual exhibition for the best results. The mover, Mr. Roy, kindly offered, should the recommendation be adopted, to furnish one half of the plants at his own cost.

The above is in brief the result of our year's work. Financially we have lost a little ground, but in other directions we have gained. It seems to be a most difficult matter to arouse any enthusiasm in our city in horticultural matters; but much has been done in the past, and I think that by untiring effort much more will be accomplished in the future.

Respectfully submitted,

THOS. WILLIAMSON,

Secretary.

EXHIBITION, SEPTEMBER, 1895.

PRIZE LIST.

Collection of decorative plants 100 feet square—1, F. Roy, superintendent Mount Royal Cemetery; 2, J. Betrix, gardener to Andrew Allan.

Collection of 50 feet square—1, J. Betrix; 2, F. Roy; 3, Wilshire Bros.; 4, W. H. Mayer, gardener to John Molson.

Adiantums, six—1, F. Roy; 2, Geo. Buddo, gardener to Sir Donald Smith.

Anthuriums, two—1, W. J. Wilshire, gardener to R. B. Angus; 2, F. Roy; 3, G. Buddo.

American Aloes, two—1, F. Roy; 2, C. A. Smith, gardener to T. A. Dawes.

American Aloes, one—1, H. W. Mayer; 2, F. Roy; 3, A. Pinoteau, city gardener.

Begonias, foliage, six—1, B. T. Graves, Westmount; 2, A. Pinoteau; 3, H. W. Mayer.

Begonias, tuberous, twelve—1, T. McHugh, Forest and Stream Club; 2, F. Roy.

Begonias, tuberous, six—1, F. Roy; 2, W. J. Mayer.

Caladiums, six—1, J. Betrix; 2, F. Roy; 3, H. W. Wilshire.

Caladiums, three—1, F. Roy; 2, J. Betrix; 3, H. W. Mayer.

Crotons, six—1, W. J. Wilshire; 2, F. Roy; 3, A. Pinoteau.

Crotons, three—1, F. Roy; 2, A. Pinoteau.

Cycas—1, John Walsh, gardener to W. W. Ogilvie; 2, A. Pinoteau; 3, W. J. Wilshire.

Dracaenas—1, F. Roy; 2, C. A. Smith; 3, A. Pinoteau.

Dracaena—1, F. Roy; 2, C. A. Smith; 3, H. W. Mayer.

Ferns, six—1, W. J. Wilshire; 2, G. Buddo; 3, F. Roy.

Ferns, three—F. Roy; 2, G. Buddo.

Ferns, one—1, Wilshire Bros.; 2, F. Roy; 3, J. Betrix; 4, G. Buddo.

Tree fern—1, John Walsh; 2, J. Betrix; 3, G. Buddo; 4, H. W. Mayer.

Fuchsias, six—1, F. Roy; 2, A. Pinoteau.

Fuchsias, three—1, F. Roy; 2, A. Pinoteau; 3, Geo. Trussell, gardener to J.

H. R. Molson.

Fuchsia—1, F. Roy; 2, A. Pinoteau.

Geraniums, zonal, six—1, Geo. Trussell.

Double geraniums, six—1, Geo. Trussell.

Geraniums, six varieties—1, Geo. Trussell.

Gloxinias, twelve—1, G. Buddo.

Gloxinias, six—1, G. Buddo.

Ficus Elastica, two—1, H. W. Mayer; 2, J. Betrix; 3, G. Trussell.

Ficus Elastica Variegata—1, C. A. Smith; 2, H. W. Mayer; 3, F. Roy.

Hanging basket—1, F. Roy; 2, H. W. Mayer; 3, A. Pinoteau.

Hanging basket, ferns—1, C. A. Smith; 2, A. Pinoteau; 3, F. Roy.

Lygodium Scandens—1, John Walsh.

Marantas, three—1, F. Roy.

Maranta, one—1, J. Betrix; 2, G. Buddo.

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- Nepenthes, three—1, F. Roy.
 Nepenthes, one—1, F. Roy.
 Orchids, three—1, W. J. Wilshire; 2, F. Roy.
 Orchid, one—1, F. Roy.
 Palms, six—1, W. J. Wilshire; 2, J. Walsh; 3, F. Roy.
 Palms, three—1, W. J. Wilshire; 2, F. Roy; 3, C. A. Smith.
 Palms, six in 6-inch pots—1, F. Roy; 2, C. A. Smith; 3, H. W. Mayer.
 Palm, one—1, W. H. Mayer; 2, F. Roy; 3, C. A. Smith; 4, G. Buddo.
 Vase of plants—1, A. Pinoteau; 2, B. T. Graves; 3, F. Roy.
 Five plants for table decoration—1, W. J. Wilshire; 2, F. Roy; 3, W. H. Mayer; 4, J. Walsh; 5, G. Buddo.
 Selaginella—1, G. Buddo; 2, F. Roy.
 Stove or greenhouse flowering plant—1, J. Walsh; 2, J. Betrix; 3, F. Roy.
 Stove or greenhouse foliage plants—1, W. J. Wilshire; 2, F. Roy; 3, J. Walsh.
 Stove or greenhouse foliage plant—1, F. Roy; 2, J. Betrix; 3, C. A. Smith.
 Cannas, French, three—1, B. T. Graves; 2, Geo. Trussell; 3, Robert Reid (Outremont); 4, H. W. Mayer.
 Canna, one—1, Robert Reid; 2, H. W. Mayer; 3, B. T. Graves.
 Hydrangeas, two—1, Geo. Trussell.
 Hydrangeas, one—1, J. Walsh.
 Stove or greenhouse climber—1, T. McHugh; 2, J. Betrix.
 Coleus, six—1, B. T. Graves; 2, C. A. Smith; 3, Geo. Trussell.
 Coleus, three—1, C. A. Smith; 2, B. T. Graves; 3, Geo. Trussell.
 Liliiums, three—1, B. T. Graves; 2, Geo. Trussell.
 Asparagus plumosus nana—1, J. Betrix; 2, W. J. Wilshire; 3, F. Roy.
 Collection of cacti and succulents—1, F. Roy; 2, A. Pinoteau; 3, B. T. Graves.
 Collection of cut bloom, outside—1, F. Roy; 2, W. Alcock, gardener to Hugh McLennan; 3, John B. Goode.
 Asters, twenty-four—1, J. B. Goode; 2, A. S. Winter (Sherbrooke); 3, C. T. Smith.
 Asters, twelve—1, Mrs. E. Johnson (Lennoxville); 2, J. B. Goode; 3, A. S. Winter; 4, H. W. Mayer.
 Dahlias, double, six—1, Mrs. Johnson; 2, A. S. Winter; 3, C. A. Smith.
 Dahlias, single, twenty-four—1, J. Walsh.
 Dahlias, single, twelve—1, J. Walsh; 2, C. A. Smith.
 Dianthus, twenty-four—1, B. T. Graves; 2, A. Pinoteau; 3, A. S. Winter.
 Gladioli, twelve—1, F. Roy; 2, Robert Reid; 3, G. Trussell.
 Gladioli—1, Robert Reid; 2, B. T. Graves; 3, G. Trussell; 4, C. T. Smith; 5, A. Pinoteau.
 Gladioli, three—1, W. M. Ramsay; 2, Geo. Trussell; 3, Robert Reid; 4, C. T. Smith; 5, A. Pinoteau.
 Pansies, twenty-four—1, B. T. Graves; 2, C. T. Smith; 3, R. Gunning (Sherbrooke); 4, Mrs. Johnson.

- Pansies, twelve—1, R. Gunning; 2, Mrs. Johnson; 3, J. M. Nelson (Westmount.)
 Petunias, single—1, W. Alcock; 2, A. Pinoteau; 3, Mrs. Johnson.
 Petunias, double—1, C. A. Smith; 2, Geo. Trussell; 3, F. Roy.
 Phlox Drummondii—1, Geo. Trussell; 2, W. M. Ramsay; 3, Mrs. Johnson.
 Phlox Perennial—1, B. T. Graves; 2, F. Roy; 3, A. S. Winter.
 Sweet peas—1, Mrs. Ewing (Richmond); 2, F. Bennett, gardener to Robert Mackay; 3, Mrs. Wm. Spier (Melbourne); 4, R. Jack (Chateauguay); 5, C. A. Smith.
 Zinnias—1, J. B. Goode; 2, A. S. Winter; 3, C. A. Smith.
 Hollyhocks—1, H. W. Mayer; 2, A. Pinoteau; 3, F. Roy.
 Canna—1, B. T. Graves; 2, Geo. Trussell; 3, A. Pinoteau.
 Verbenas—2, J. B. Goode; 3, A. Pinoteau.
 Bride's bouquet—1, Geo. Buddo; 2, A. Pinoteau; 3, Geo. Trussell.
 Basket cut flowers—1, Geo. Trussell; 2, W. B. Davidson & Sons (Cote St. Paul); 3, A. Pinoteau.
 Vase of cut flowers—1, F. Roy, special award of double prize money; 2, T. W. Burdon; 3, W. B. Davidson & Sons.
 Vase of roses—1, Geo. Trussell; 2, Geo. Buddo; 3, H. W. Mayer.
 Vase of Marguerite carnations—1, W. B. Davidson & Sons; 2, F. Roy; 3, A. Pinoteau.
 Vase of outdoor cut flowers—1, Robert Reid; 2, Geo. Trussell; 3, F. Roy.
 Vase of poppies—1, B. T. Graves; 2, Geo. Trussell.
 Special—Collection of sweet peas—1, Mrs. Harkom (Melbourne); 2, Mrs. Ewing (Richmond).

APPLES.

- Collection, twenty-five varieties—1, A. Knight (Catarqui); 2, Jas. Daly (Kingston); 3, Francis Peck (Albany); 4, R. W. Shepherd (Montreal); 5, Wm. Craig & Son (Abbotsford).
 Newer Russians—1, R. Hamilton (Grenville); 2, Wm. Craig & Son; 3, A. Ducharme.
 New Seedling—1, R. W. Shepherd; 2, Jas. Daly; 3, Wm. Blackwood (Kingston).
 Twelve varieties—1, J. Daly; 2, Hugh C. Brodie; 3, A. Knight; 4, F. Peck; 5, R. W. Shepherd.
 Six varieties for commercial purposes—1, J. Daly; 2, A. Knight; 3, Jas. Coupland; 4, F. Peck.
 Fameuse—1, J. Daly; 2, R. Jack; W. Alcock; 4, R. Reid.
 St. Lawrence—1, R. W. Shepherd; 2, W. O. Roy; 3, J. Edward; 4, Jas. Daly.
 Duchess—1, D. A. Dunn; 2, W. M. Ramsay; 3, W. O. Roy; 4, J. D. McDonald (Cornwall).
 Wealthy—1, W. M. Ramsay; 2, Jas. Daly; 3, J. Robson; 4, Jas. Coupland.
 Alexander—1, J. D. McDonald; 2, C. Newman; 3, A. Knight.
 Bethel—1, J. Robson; 2, Canon Fulton.
 Bourassa—1, Jos. Knight (Elginburg); 2, J. D. McDonald; 3, J. Betrix.
 Blue Pearmain—1, Canon Fulton; 2, A. Ducharme.

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- Canada Baldwin—1, A. Knight; 2, Jas. Coupland; 3, R. W. Shepherd.
 Golden russet—1, F. Bennett; 2, Wm. Alcock; 3, J. Daly.
 Peach—1, Jos. Delorme; 2, R. Hamilton; 3, T. Hall & Son.
 Pewaukee—1, Jas. Coupland; 5, Jas. Daly; 3, A. Knight.
 Pomme grise—1, W. M. Ramsay; 2, George Grass (Elginburg); 3, R. Jack.
 Roxbury russet—1, Francis Peck.
 Strawberry—1, Jas. Daly; 2, Wm. Greer; 3, W. M. Ramsay.
 Winter St. Lawrence—1, Wm. Greer; 2, C. Newman; 3, Jas. Coupland.
 Yellow transparent—1, A. Knight; Wm. Greer; 3, J. Daly.
 Any other varieties—1, Jas. Daly; 2, Joseph Knight; 3, R. W. Shepherd.
 Crab apples, five—1, J. Robson; 2, R. Hamilton.
 Crab apples, one variety—1, W. Blackwood; 2, R. W. Shepherd.
 Pears, six varieties—1, J. Betrix; 2, A. Knight; 3, F. Peck; 4, Geo. Trussell.
 Pears, three varieties—1, A. Knight; 2, J. Betrix; 3, D. A. Dunn.
 Pears, one variety—1, C. T. Smith; 2, A. Knight; 3, Canon Fulton.
 Plums, six varieties—1, D. A. Dunn; 2, B. T. Graves; 3, Francis Peck.
 Plumbs, three varieties—B. T. Graves; 2, Pierre Chabot; 3, D. A. Dunn.
 Plums, one variety—1, B. T. Graves; 2, D. A. Dunn; 3, Pierre Chabot.
 Plums, wild P.Q.—1, Pierre Chabot; 2, R. Hamilton.
 Plums, wild N.W.—1, James Robson; 2, R. Hamilton.
 Basket of fruit for dessert—1, J. Betrix; 2, John Eddy; 3, Geo. Trussell.
 Basket of outdoor fruits—1, T. Hall & Son; 2, W. M. Ramsay; 3, Robert Jack;
 4, John Eddy.
 Outdoor grapes, eight varieties—1, W. M. Pattison; 2, R. Reid; 3, R. Jack;
 4, La Trappe Monastery; 5, J. J. Gareau.
 Outdoor grapes, four varieties—1, R. Jack; 2, C. A. Smith; 3, J. Daly; 4, R. Reid.
 Outdoor grapes, two varieties, white—1, B. Jack; 2, J. Daly; 3, W. M. Pattison.
 Outdoor grapes, two varieties, black—1, W. M. Pattison; 2, R. Jack; 3, Geo.
 Trussell.
 Outdoor grapes, red—1, R. Jack; 2, Geo. Trussell; 3, W. M. Pattison.
 Outdoor grapes, heaviest bunch—2, R. Jack.
 Outdoor grapes, black, heaviest bunch—1, R. Jack; 2, Robt. Reid.
 Outdoor grapes, red—1, J. Daly; 2, R. Jack.
 Outdoor grapes, white—1, R. Jack; 2, W. M. Pattison.
 Indoor grapes, six varieties—1, W. J. Wilshire; 2, J. McGuire; 3, Jules Betrix.
 Indoor grapes, four varieties—1, W. J. Wilshire; 2, Jas. McGuire; 3, J. Betrix.
 Indoor grapes, two varieties, white—1, Jas. McGuire.
 Indoor grapes, two bunches, black Hamburg—1, F. Bennett; 2, J. Betrix;
 3, J. McGuire.
 Indoor grapes, best bunch any variety—1, W. J. Wilshire; 2, J. McGuire;
 3, J. Betrix.
 Nectarines—1, John Eddy, gardener to Mrs. Redpath.
 Peaches, six varieties—1, J. Betrix.

- Peaches, plate—1, J. Betrix.
- Water melon—1, College Notre Dame (Cote des Neiges); 2, W. B. Davidson; 3, Geo. Trussell.
- Musk Melon—1, Jas. McGuire; 2, W. B. Davidson & Sons; 3, Geo. Trussell; 4, F. Roy; 5, T. Hall & Son.
- Melon, new—1, College Notre Dame; 2, Geo. Trussell; 3, W. B. Davidson.
- Artichokes—1, C. Newman (Outremont); 2, College Notre Dame.
- Beets, turnips blood—1, T. Westlake; 2, Pierre Chabot; 3, W. B. Davidson.
- Beets, long blood—1, College Notre Dame; 2, W. Cagney (Quebec); 3, T. Westlake (Lachine).
- Beans, Lima—1, C. T. Smith; 2, T. Westlake; 3, College Notre Dame.
- Beans, kidney, yellow—1, J. J. Gareau; 2, J. M. Nelson; 3, T. Westlake.
- Beans, green—1, Wm. Cagney; 2, Jas. McGuire; 3, C. A. Smith.
- Kale—College Notre Dame; 2, F. Roy.
- Brussels Sprouts—1, W. Cagney; 2, College Notre Dame.
- Winter Cabbage—1, College Notre Dame; 2, George Jeffrey.
- Cabbage, red—1, W. Cagney; 2, College Notre Dame.
- Cabbage, Savoy—1, College Notre Dame; 2, W. B. Davidson.
- Carrots—1, C. Newman; 2, T. Hall & Son; 3, Geo. Trussell.
- Cauliflower—1, T. R. Hughes; 2, College Notre Dame; 3, C. Newman; 4, T. Hall & Son.
- Cauliflower, best head—1, T. R. Hughes; 2, T. Hall & Son; 3, Wm. Cagney.
- Cucumber—1, Geo. Jeffrey; 2, J. Robson.
- Celery, white—1, T. Hall & Son; 2, T. Westlake. 3, W. B. Davidson & Son; 4, La Trappe Monastery.
- Celery, red—1, Geo. Trussell; 2, W. Cagney; 3, T. Hall & Son; 4, W. B. Davidson & Son.
- Celery, yellow—1, T. Hall & Son; 2, W. B. Davidson; 3, C. A. Smith; 4, College Notre Dame.
- Corn, sweet—1, C. A. Smith; 2, D. A. Dunn; 3, College Notre Dame.
- Corn, sweet, collection—1, C. A. Smith; 2, George Trussell.
- Egg plants, purple—1, C. T. Smith; 2, C. Newman.
- Egg plants, white—1, J. J. Gareau; 2, College Notre Dame.
- Leeks—1, College Notre Dame; 2, P. Nolin (Charlesburg); 3, F. Roy.
- Onions, six varieties—1, W. M. Ramsay; 2, T. Hall & Son; 3, C. A. Smith.
- Onions, red—1, T. Hall & Son; 2, C. A. Smith; 3, George Trussell; 4, W. M. Ramsay.
- Onions, yellow—1, C. A. Smith; 2, T. Hall & Son; 3, Frère Louis (College St. Laurent); 4, Geo. Trussell.
- Onions, white—1, T. Hall & Son; 2, C. A. Smith; 3, W. M. Ramsay; 4, T. Westlake.
- Parsnips—1, C. Newman; 2, T. Hall & Son; 3, C. A. Smith.
- Peas—1, W. Cagney; 2, J. J. Gareau; 3, Geo. Trussell.

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- Peppers—1, C. A. Smith; 2, J. J. Gareau; 3, Jos. Garault (St. Roch l'Achigan).
 Potatoes, collection—1, T. R. Hughes; 2, T. Hall & Son; 3, John Nesbit;
 4, Wm. Greer.
 Potatoes, three varieties—1, T. R. Hughes; 2, J. B. J. Prefontaine (South
 Durham); 3, J. Nesbit.
 Pot herbs—1, T. Hall & Son; 2, College Notre Dame; 3, W. Cagney.
 Radishes, winter—1, R. Jack; 2, W. M. Ramsay; 3, W. B. Davidson.
 Radishes, summer—1, J. J. Gareau; 2, C. T. Smith; 3, O. Dagenais (Cote St.
 Michel).
 Radish, horse—1, W. B. Davidson; 2, J. M. Nelson; 3, A. Ducharme (St. Paul
 d'Abbotsford).
 Lettuce, cabbage—1, T. Hall & Son; 2, C. Newman; 3, W. B. Davidson & Son.
 Parsley—1, C. Smith; 2, College Notre Dame.
 Salsify—1, W. Cagney; 2, P. Nolin; 3, C. A. Smith.
 Tomatoes, three varieties—1, J. Robson; 2, C. T. Smith; 3, Geo. Trussell.
 Tomatoes, red—1, C. A. Smith; 2, W. B. Davidson.
 Tomatoes, yellow—1, Joseph Garault; 2, W. B. Davidson & Sons.
 Turnips, white—1, College Notre Dame; 2, W. Cagney; 3, John Nesbitt.
 Turnips, yellow—1, Wm. Cagney; 2, College Notre Dame; 3, Wm. Greer.
 Squash, vegetable marrow—1, J. Robson; 2, W. B. Davidson & Son.
 Squash, hubbard—1, W. Cagney; 2, Frere Louis.
 Squash, best for table—1, T. Hall & Son; 2, George Jeffrey.
 Best collection of vegetables, 36 feet—1, Tom Hall & Son; 2, W. B. Davidson &
 Son; 3, W. Cagney.

AMATEUR DEPARTMENT.

- Plants, six—1, R. Reid; 2, W. B. Hamilton; 3, T. W. Burdon; 4, H. Whitman.
 Plants, three—1, R. Reid; 2, W. B. Hamilton; 3, Israel Rubenstein; 4, George
 Jeffrey.
 Plant specimen—1, W. B. Hamilton; 2, R. Reid; 3, I. Rubenstein.
 Pot mignonette—1, W. B. Hamilton.
 Pot musk—1, George Jeffrey.
 Abutilon—1, R. Reid; 2, H. Whitman; 3, T. W. Burdon.
 Hydrangea—3, Miss Ross.
 Balsam—1, R. Reid; 2, Wm. Staines; 3, W. M. Ramsay.
 Aster—1, W. Staines; 2, W. M. Ramsay; 3, Geo. Jeffrey.
 Begonia rex—1, I. Rubenstein; 2, T. W. Burdon; 3, R. Reid.
 Heliotrope—1, Geo. Jeffrey; 2, W. B. Hamilton; 3, T. W. Burdon.
 Double petunia—1, R. Reid; 2, W. B. Hamilton; 3, Wm. Staines.
 Single petunia—1, T. W. Burdon; 2, W. Staines; 3, R. Reid.
 Verbenas—1, T. W. Burdon; 2, W. B. Hamilton; 3, W. M. Ramsay.
 Oleander—1, W. B. Hamilton; 2, George Jeffrey.
 French canna—1, R. Reid; 2, H. Whitman; 3, W. B. Hamilton.
 Stock—W. M. Ramsay; 2, W. B. Hamilton; 3, T. W. Burdon.

- Mimulus—1, R. Reid.
 Fuchsias—1, R. Reid ; 2, W. B. Hamilton ; 3, T. W. Burdon.
 Geranium—1, R. Reid ; 2, W. B. Hamilton ; 3, W. Staines.
 Tuberous begonias—1, R. Reid ; 2, W. Staines ; 3, H. Whitman.
 Foliage plants—1, T. W. Burdon ; 2, R. Reid ; 3, P. A. Somerville.
 Foliage plants, three varieties—1, T. W. Burdon ; 2, W. B. Hamilton ; 3, R. Reid.
 Specimen foliage plants—1, I. Rubenstein ; 2, W. B. Hamilton ; 3, T. W. Burdon.
 Coleus—1, R. Reid ; 2, H. Whitman ; 3, T. W. Burdon.
 Fern—1, R. Reid ; 2, T. W. Burdon ; 3, H. Whitman.
 Ivy—1, W. B. Hamilton ; 2, T. W. Burdon ; 3, H. Whitman.
 Palm—1, I. Rubenstein ; 2, T. W. Burdon ; 3, H. Whitman.
 Rubber plant—1, H. Whitman ; 2, Robert Reid ; 3, W. B. Hamilton.
 Window box—1, H. Whitman ; 2, T. W. Burdon ; 3, W. B. Hamilton.
 Annuals, collection—1, W. M. Ramsay ; 2, R. Cooke ; 3, R. Reid ; 4, A. S. Winter.
- Asters—1, Mrs. Johnson ; 2, R. Reid ; 3, J. B. Goode.
 Bouquet—1, P. A. Somerville ; 2, H. Whitman ; 3, R. Jack.
 Basket of cut flowers—1, P. A. Somerville ; 2, T. W. Burdon ; 3, W. M. Ramsay.
 Vase of cut flowers—1, W. M. Ramsay ; 2, R. Reid ; 3, P. A. Somerville.
 Dahlias, double—1, R. Gunning (Sherbrooke) ; 2, R. Reid.
 Gladioli—1, R. Reid ; 2, W. M. Ramsay ; 3, Wm. Staines.
 Pansies, eighteen—1, Mrs. John Ewing (Richmond) ; 2, Mrs. Johnson (Lennoxville) ; 3, R. Gunning.
 Pansies, twelve—1, Mrs. E. Johnson ; 2, R. Gunning ; 3, A. S. Winter.
 Dianthus—1, W. M. Ramsay ; 2, R. Cooke ; 3, A. S. Winter.
 Stocks—1, Mrs. Johnson ; 2, A. S. Winter ; 3, R. Cooke.
 Verbenas—1, Geo. Jeffrey ; 2, R. Cooke ; 3, A. S. Winter.
 Hanging basket—1, H. Whitman ; 2, P. A. Somerville.
 Petunias, double—1, W. M. Ramsay ; 2, R. Reid ; 3, A. S. Winter.
 Petunias, single—1, J. B. Goode ; 2, Mrs. Johnson ; 3, H. Whitman.
 Phlox Drummondii—1, W. M. Ramsay ; 2, R. Cooke ; 3, Geo. Jeffrey.
 Sweet peas—1, Mrs. E. Johnson ; 2, R. Reid ; 3, Mrs. Ewing.
 Zinnias—1, A. S. Winter ; 2, John B. Goode ; 3, W. M. Ramsay.
 Vase poppies—1, W. M. Ramsay.
 Apples, three varieties—1, R. Reid ; 2, M. Smith (Lachute) ; 3, W. M. Ramsay.
 Apples, one variety—1, R. Reid ; 2, W. M. Ramsay ; 3, R. Harvie.
 Grapes, five varieties—1, P. A. Somerville ; 2, W. M. Ramsay ; 3, R. Reid.
 Grapes, one variety—1, W. M. Ramsay ; 2, P. A. Somerville ; 3, Mrs. F. Dion.
 Melon, musk—1, Mrs. F. Dion ; 2, La Trappe Monastery.
 Pears, plate—1, Mrs. F. Dion ; 2, R. Reid ; 3, W. M. Ramsay.
 Plums, plate—1, J. B. Goode ; 2, R. Harvie ; 3, Geo. Grass.
 Corn—1, A. H. Dunn ; 2, John M. Nelson.
 Potatoes—1, W. Denman, jr. (Outremont) ; 2, Tom Grimsdale.

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- Tomatoes—1, W. M. Ramsay ; 2, Mrs. F. Dion.
 Onions—1, W. M. Ramsay ; 2, Geo. Grass.
 Carrots—1, Wm. Greer ; 2, Tom Grimsdale.
 Beets—1, Robert Reid ; 2, Tom Grimsdale.
 Celery—1, Geo. Hyde (Outremont) ; 2, Robert Reid.
 Parsnips—1, W. M. Ramsay ; 2, Mrs. F. Dion.
 Beans—1, Tom Grimsdale ; 2, W. Denman, jr.
 Salsify—1, W. M. Ramsay ; 2, La Trappe Monastery.
 Cauliflower—1, Tom Grimsdale ; 2, Mrs. Dixon ; 3, La Trappe Monastery.
 Beans—1, John B. Goode ; 2, Alfred H. Dunn.



THE EXHIBITION.

MORE ABOUT THE FLOWERS.—THE WINNINGS IN THE SCHOOL PUPILS' COMPETITION—
MR. MOORE'S VIEWS.

[*Montreal Gazette, September 14, 1895.*]

The horticultural part of the Exhibition, under the able management of Mr. F. Roy and his staff of willing assistants, and the indefatigable exertions of Mr. Williamson, the Secretary of the Horticultural Society, has now settled into its proper shape, notwithstanding the fact that the building is far too small for the number of specimens therein, and presents a scene of beauty worth many times the price of admission to the whole show.

It is difficult to particularize where all is well worthy of special mention, but there are certain features which deserve more than a casual notice—the groups of Exotics from the hothouses of Andrew Allan, Esq. (Mr. J. Betrix, gardener); Mr. F. Roy, of Mount Royal Cemetery; John Molson, Esq. (Mr. Mayer, gardener), and Mr. Wilshire, florist, Bleury Street.

It is impossible to say too much in praise of these groups, either as individual specimens of good cultivation or their admirable arrangement. There was quite a keen competition between Messrs. Betrix and Roy for the prize for the two first groups, and they came out about equal, Mr. Roy obtaining first for the 100 feet group, and Mr. Betrix second, while for the 50 feet group, Mr. Betrix won first, and Mr. Roy second.

I must confess I would not like to have been the judge. The plants in all the groups, especially Mr. Roy's and Betrix's, were of the choicest. Crotons, Palms, Cycads, Dracenas, Ferns, Pandanas, Marantas, Caladiums, Ficus, etc.

The Crotons and other plants in Mr. Roy's collection were remarkable for the richness of their coloring, and in this respect the Marantas in Mr. Betrix's collection were never excelled. *Araucaria excelsa glauca* was very effective, showing its great superiority over the old favorite *Araucaria excelsa* which graces the hill-sides of the distant "Norfolk Island." Mr. Mayer's group showed care and attention to the growth of the plants and was well arranged. Mr. Wilshire's, too, was admirable in every respect. It would perhaps be to the advantage of professional florists to imitate this gentleman's good example.

THE MAIDEN HAIR FERNS.

Adiantums from Messrs. Roy and Buddo were wonders of good culture, only those who have charge of these delicate foliage plants can appreciate the constant watchfulness as to light, air, and water that they require to bring them to this state of perfection.

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The foliage Begonias from Messrs. B. T. Graves, Mayer, and Pinoteau (city gardener), were fine specimens of their kind. But the tuberose-rooted ones shown by Mr. T. McHugh, gardener to the Forest and Stream Club, and Mr. F. Roy—especially the former—were marvels of good culture. A *Clerodendron Balfourii* from Mr. McHugh was, in the opinion of many, the most profusely bloomed specimen ever seen in Montreal, and although a little *passee*, was still an object of admiration by all. Betrix, Roy, Wilshire, Pinoteau, etc., shine in Crotons and Caladiums; Roy and Buddo in ferns. J. H. R. Molson's gardener, Mr. Trussell, showed several of the best bloomed geraniums in pots that one could imagine, for which he swept the prizes.

The curious, large foliated plant, *coccoloba pubescens* more noticeable for its singularity than beauty, was exhibited by Mr. Roy, and attracted much attention.

Mr. Graves's coleus were remarkably fine grown specimens as to form, but a collection to which no prize was awarded, surpassed them in color and choice variety. Three collections of cacti occupied a corner in the hall, and their grotesque habit of growth was interesting to those who could afford time to look off the gay things by which they were surrounded.

Cut flowers there were in abundance and beauty, but space forbids us to go into particulars.

To the fruit it would be impossible to do justice, a larger and finer display never appeared in Montreal of apples, and the prize list must suffice to tell your readers from where they came.

Messrs. Jack and Pattison were the principal exhibitors of outdoor grapes, together with Messrs. C. A. Smith, Daly and Robt. Reid. Mr. Pattison called the writer's attention to a variety called "Standard," a dark grape, very large bunches, and with the Delaware flavor.

In the amateur class, Mr. P. A. Somerville distinguished himself as usual with his bouquet and basket of flowers, winning first prize for them, which he has done for the last 15 years, sticking to the Society through all its vicissitudes with commendable zeal. He also won the first prize for a collection of outdoor grapes, and second for the best single bunch. Mr. Betrix was the only exhibitor of indoor peaches, which were very fine and took the prizes. Mr. Eddy, gardener to Mr. Redpath, took the prize for nectarines.

Perhaps, in some respects at least, the most interesting part of the whole Exhibition is the children's collection of tuberose-rooted Begonias.

The direction of the Horticultural Society, with a laudable desire to encourage a taste for the culture of flowers in the rising generation, distributed a number of flowering Begonia roots amongst the scholars of the city schools with directions how to grow them and promises of rewards to the most successful, the result of which is the exhibition of to-day. Many of the specimens show that they have been treated with intelligent care, and it was pleasant to see the glad faces of the prize winners, although we could have wished that all could have been rewarded. Another season it might be well to extend the variety of plants to the grown.

The Committee could hardly have hit upon a wiser expedient to extend the usefulness of the Society.

In the moral training of our youth they cannot be too early taught to admire and take a lively interest in the beauties of nature, and, looking upon the importance of the subject, I must ask you to kindly publish the names of the prize winners so far as they have been furnished me by the secretary:—

MOUNT ROYAL SCHOOL.

Medal of honor for the best exhibit:—

1st, Maggie Butler; 2nd, Henry Watson; 3rd, Edith Gotto; 4th, Bertha Gittle-son; 5th, Richmond Robinson; 6th, Wallace Connors; 7th, Lawrence Batchelor; 8th, Lillian Lyons; 9th, James McDougall; 10th, Kate Connors.

LANSDOWNE SCHOOL.

1st, Minnie White; 2nd, Bella Barth; 3rd, Bertha Genser; 4th, Alice Atchison; 5th, Fred. Johnson; 7th, Edmond Jones; 8th, Mabel Bottomley.

SHERBROOKE SCHOOL.

1st, Alice Leames; 2nd, Christie McBride; 3rd, W. A. Hann; 4th, Robt. Wilson; 5th, Arch. McBride; 6th, Lily Leames.

HOCHELAGA SCHOOL.

1st, George Laing; 2nd, Henry East; 3rd, Walter Bishop; 4th, Olaf Hansen; 5th, Mabel Wilkinson.

BERTHELET SCHOOL.

1st, Wm. Armour; 2nd, Walter Carson; 3rd, Victor Betrix; 4th, Ada Staten.

M'GILL MODEL SCHOOL.

1st, A. Norman; 2nd, H. Grimsdale; 3rd, M. Armour.

ANN STREET SCHOOL.

1st, John Berling; 2nd, Chester Sheehan; 3rd, Maud Taylor.

DUFFERIN SCHOOL.

1st, Charlotte Wright; 2nd, Douglas Stewart; 3rd, Julia Stewart.

BRITANNIA SCHOOL.

1st, Charles Olsson.

RIVERSIDE SCHOOL.

1st, Mary Smith; 2nd, Wilfred Cliff.

SENIOR SCHOOL.

1st, Donald Walker; 2nd, Florence Thomas; 3rd, Edgar Murphy.

VICTORIA SCHOOL.

1st, Grace Brown; 2nd, Maud Smith; 3rd, Gladys Smith.

LORNE SCHOOL.

1st, Annie Quinn; 2nd, Clarence Porter.

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HIGH SCHOOL.

1st, Maxwell Gardner; 2nd, Stewart Allen; 3rd, Irwin Brophy; 4th, M. Michaels; 5th, Gordon Hodges; 6th, no name; 7th, Wanlock Reid; 8th, James H. McBride; 9th, Fraser Gurd; 10th, W. Loudon.

A diploma was deservedly awarded to an exhibit of rustic garden furniture from Mr. Real Huot, of Charlesburg, near Quebec, and it attracts much attention. There are seventy-five pieces, all different, which are made of nine varieties of wood, and all by Mr. Huot's own hand. There is also a summer arbor which is very tastefully and ingeniously made. It is comprised of three hundred and sixty pieces of wood and put together without a nail, the pieces being interlaced in such a manner as to be perfectly strong and yet light and elegant. Mr. Huot should be encouraged, for this is a case where the waste product of the bush is turned to good account by the skill and industry of the exhibitor. Mr. Huot has received an invitation to visit Ottawa with samples, which he has accepted.

The display of roots and grains is quite unparalleled in the history of Montreal shows.

We were glad to see that our growers from this Province held their position well against all competitors, and we see P.Q. after the addresses of most of the prize winners. Amongst the market gardeners, we notice the name of one of the oldest and most successful, Mr. W. B. Davison, late of Côte St. Paul; Messrs. Hall & Son, and a highly creditable selection from Mr. W. Cagney, of Quebec, who obtained quite a number of prizes. A fine exhibit of vegetables was interesting as coming from the inmates of the Protestant Insane Asylum, Verdun, and a collection of forty varieties of potatoes from Mr. Prefontaine, of South Durham, not for competition.

The season has not been too propitious to growth of crops in many sections, and hence, we must look to some other cause for the great improvement which is most gratifying. No doubt the cause is the greater interest and care taken in their production by the cultivators. This spirit has been engendered by the means taken by a paternal government in spreading agricultural knowledge, by establishing farmers' clubs, experimental farms and colleges, by the improved literature and numerous lectures. It is a matter of congratulation to the honorable Commissioner of Agriculture, his enthusiastic deputy, Mr. Gigault, and all his staff of assistants, that their efforts have borne such good fruit in so short a time. When we contrast the present Exhibition with those of a few years ago, the improvement is phenomenal, and it is evident that agriculturists have at length awakened to the necessity of active and intelligent exertion, and that Canadian farming is asserting its true position as the most important industry, the prosperity and progress of which is the keystone in the arch of success in this or any other country, and will contribute more than any other factor to make the Dominion great and glorious.

GEO. MOORE.

I do not pretend that this is a full report of all the good things to be seen, but a *resumé* of what occurred to me as the most noticeable in a ramble through the Exhibition.

G. M.

Annual Report of the Secretary Treasurer of the Montreal Horticultural Society and Fruit Growers Association of P. Q. for year to 30th November, 1895.

RECEIPTS.

I. Members subscriptions :		
468 members at \$2.....		936
20 " " 1.....		20
480 "		<u>956</u>
II. Special subscriptions .		
Mrs. McDougall.....	25	
W. W. Ogilvie.....	25	
R. Mackay.....	25	
James King.....	20	
H. Montague Allan.....	10	
James Morgan.....	10	
G. Cheney.....	10	
Hon. John S. Hall.....	5	
James Currie.....	5	
F. Roy for juvenile scheme.....	25	
III. Government grant.....		160
IV. Juvenile Department :		500
546 members at 25 cents.....		136 50
V. Entries at Exhibition.....		13 50
Balance due Treasurer.....		27 71
		<u>1,793 71</u>

EXPENSES.

Balance due Treasurer 30th November, 1894.....		51 36
I. Rent		75
II. Salaries.....		300
III. Expenses of Conservatory openings.....		57 79
IV. Expenses of Exhibition.....		134 78
V. Prizes at Exhibition.....		1,728 75
Less paid by Exposition Co.....		<u>1,064 80</u>
VI. Commission collecting subscriptions.....		663 95
VII. Expenses of Library.....		111 65
VIII. Donations to General and Notre Dame Hospitals.....		36
IX. Insurance		40
X. Expenses and prizes in Juvenile Dept.....		4 70
XI. Advertising.....		165 65
XII. Printing, stationery, and office expenses.....		15 90
		136 93
		<u>1,793 71</u>

Audited by Riddell & Common, chartered accountants.

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Finances.—All the debts of the Society have been paid, the only liability being the above amount of \$27.71 due to Treasurer, which will be made up by members subscriptions yet to come in. We started the year with a debit balance of \$51.36, and a sum of \$40 due to the Hospitals, so we have gained during the year a sum of nearly \$100. The Directors had hoped to present to you a very much better statement, which should include a sum of \$500 due on account of grant; but a few days ago I received a letter from the Provincial Government, intimating that the Grant had been reduced to \$500 per annum. This was in reply to my letter requesting payment of balance. This is a matter which should be taken up at once by the new Board, and pressure brought to bear upon the Government by petition, and otherwise to induce them to restore the Grant to the original amount of \$1,000.

Membership.—The receipts from this source were \$956, an increase of \$212 since last year. 145 new members were added to the roll, while 36 died or withdrew, leaving the membership at 488—a nett gain of 109. Besides these I can certainly collect 12 more subscriptions which would bring the total up to 500. This is the largest number since the year 1889, when the membership stood at 541. This result is fairly satisfactory, and there is every reason to believe, that by persistent efforts, a still further gain can be made every year.

Special Subscriptions.—It will be seen from the accounts that less was derived from this source than in former years. This, however, is not due to any abatement of interest on the part of our friends. The Directors saw their way to a successful conclusion financially, and refrained from any pressure in this direction.

Conservatory Openings.—Through the courtesy of their owners the following conservatories were opened to members of the Society and friends during the year, viz.:

Andrew Allan, February 16 and 23, March 2.
 H. Montague Allan, February 2 and March 2.
 R. B. Angus, February 9 and 23.
 Mrs. Burnett, January 26, February 9 and 23.
 Lord Mount Stephen, February 23, March 2 and 16.
 W. W. Ogilvie, February 9 and 23, March 9.
 Mrs. Robertson, February 9 and 16.
 James Ross, January 26, February 16, March 9.
 Sir Donald A. Smith, March 2 and 16.
 Sir William Van Horne, February 2 and 9, March 16.
 Wm. McGibbon, January 26, February 2 and 6, March 2.
 Mount Royal Cemetery Co., January 26, February 2 and 6, March 2.
 City Gardener, January 26, February 2 and 16, March 2.
 Also the grounds of A. Joyce, Outremont, September 14 and 19.

This list is probably the largest in the history of the Society, and the privilege was largely taken advantage of.

Exhibition.—The annual exhibition was held from 12th to 21st September in

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conjunction with the Montreal Exposition Co. and on their grounds. The value of prizes offered was nearly \$1,900 and the amount actually awarded \$1,728.75—by far the largest sum ever paid. The arrangement with the Exposition Co. was again very satisfactory. Every section was made open, and doubtless this fact contributed largely to the success of the exhibition. There were 95 exhibitors and 2,004 entries besides 226 in the Juvenile Department as follows:

Plants.....	207	against	206	in 1894
Cut Bloom.....	240	"	186	"
Apples, etc.....	420	"	235	"
Grapes.....	92	"	52	"
Vegetables.....	540	"	321	"
Amateur Department.....	505	"	174	"
	<hr/>		<hr/>	
	2,004		1,174	
Juvenile Department.....	226		
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	2,230		1,174	

This shows the increase over last year to have been 1,056, nearly 100 per cent. In the Amateur Department the increase was most noticeable, being nearly 300 per cent. This is the most gratifying feature of the whole exhibition. In a society where amateurs number 90 per cent of the whole membership it is very encouraging to find them taking an ever increasing interest in its practical work.

There was again a large and magnificent display of decorative and flowering greenhouse plants. The exhibit of fruits, especially apples and grapes, marked a decided improvement in this department and was the largest in recent years. Cut bloom was also much improved both in quality and quantity, although the length of the exhibition was very trying to the flowers. The large percentage of prizes taken by amateurs in this department was very noticeable. Baskets and bouquets, with one or two exceptions, again left much to be desired. The exhibit of vegetables was very large and of a high class. Not the least interesting feature of the exhibition was the group of children's Begonias numbering over 200 plants, many of which showed evidences of care and intelligent cultivation. Taken as a whole the Exhibition easily takes first place in the history of the Society. The directors of the Exposition Co. again expressed their high appreciation of our efforts and satisfaction with the result.

Report.—All the material for the 17th Annual Report is in the hands of the printer, and will be issued to the members by the end of the year. The report contains besides a full record of the transactions and exhibitions of the Society, all the returns from the members of the Fruit Advisory Board, which will be found very interesting and instructive: Also many valuable papers upon Horticulture, Fruit Growing and kindred subjects, including the Horticultural Papers which appeared in the Journal of Agriculture.

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MONTREAL, 7

Constitution and By-Laws.—The Revised Constitution and By-Laws adopted at a general meeting of the Society held on 15th December last, and approved of by the Lieutenant Governor in Council, have been printed and are now ready for delivery to members.

Honorary Life Members.—During the year the name of Mr. Richard White, of the Gazette, was added to the list; while we have to record with much regret the death of Mr. Warden King, and Canon Fulton, St. Vincent de Paul, two of the oldest and most respected members of the Society.

Juvenile Department.—It will be remembered that the Juvenile scheme introduced by Mr. Roy, was fully discussed at the last annual meeting—the principle being adopted and details left in the hands of the new Board of Directors. They took up the question at once and decided upon the following scheme:—1st, Members to be school children in regular attendance at a public or private school, Protestant or Roman Catholic. 2nd, Fees to be 25 cents per annum. 3rd, Members to receive a plant, root, or bulb with instructions how to grow it. 4th, Prizes to be awarded at September exhibition for the best results. 5th, Members to be allowed free admission to all exhibitions held by the Society.

The scheme was laid before the Protestant and Roman Catholic School Commissioners. The former took it up very heartily—but the latter, after discussion, let it drop for the time.

The result was that 546 children from the Protestant Schools joined. To each of these was given 2 Tuberos Begonia Bulbs, with instructions how to grow them; and of the whole number 226 entered at the Exhibition and made a very creditable display. This result is fairly satisfactory as a beginning. We are assured by the teachers (who gave great assistance to the scheme) that much better results will be attained next year; and it is hoped that the Roman Catholic Schools will also fall into line. It will be seen from the accounts that the scheme has been nearly self-supporting.

This scheme is one which should receive the earnest attention of the incoming Board, as nothing will prove such an impetus to the Society as the influx of new blood into its regular membership, which the Juvenile Department will ultimately supply.

In conclusion, and reviewing the whole work of the year, we have no reason to feel disappointed with the result. In finances we have gained a little, notwithstanding the reduction of our Grant by \$500. In membership we have increased 109. In our Exhibition we have nearly doubled the exhibits, and also raised the standard of quality. Lastly, we have fairly launched the Juvenile Scheme—the most hopeful feature of all.

THOS. WILLIAMSON,
Secy.-Treasurer.

MONTREAL, 7th December, 1895.

SOME MONTREAL CONSERVATORIES.

"STAR"—30 MARCH, 1895.

Through the courtesy of their owners the city conservatories are annually opened during the winter season to the members of the Montreal Horticultural Society. This year the first opening took place on Jan. 26 and was followed every Saturday afternoon until the 16th inst., when the conservatories were closed for the season. Many members of the Society and their friends took advantage of the privilege—as many as 250 having visited some of the more popular in the course of an afternoon. The display of foliage and bloom was more beautiful this year than ever and was very much enjoyed. The Society has furnished the following descriptions of the various conservatories:

Lord Mount-Stephen (J. Stanford, gardener). This conservatory is a favorite with members of the Society and their friends, not so much on account of its proximity to the city as for the invariably tasteful arrangement of its contents which never fails to please the unprofessional eye whilst a close and careful study of the choice collection of both flowering and foliage plants supplies a fund of information to the connoisseur.

Sir Donald A. Smith (G. Buddo, gardener). The magnificent vestibule decorated with fountain and palms which opens the way to this conservatory is a fitting prelude to the gorgeous display of horticultural gems, which burst upon our gaze on entering the main building. In this collection orchids are a decided specialty comprising the *Cattleya Schrodera*, *Cypripedium Leeanum* and *Boxallii*, the *Vanda tricolor*, the *Coelogyne Cristata*, *Platyclimis glumaceum* and the *Dendrobium nobile*, *nobile majus* and *Wardianum*, and such curiosities as the *Angraecum Sesquipedale* and the *Coelogyne ocellata Maxima*, the latter being the only known example of the kind in North America. Among the *Anthuriums* are the *Wardii* and the *Rothschildiana*—extremely fine specimens. *Deutzia gracilis* is well represented and there are banks of *Imantophyllum miniatum* and *Calla Ætiopica* relieved with a rare assortment of fern trees and ferns, the most interesting of which is the *Microlepia hirta cristata*. In the adjoining stove-house we noticed fine palms, dracænas, lillium *Harrisii*, *pandanus utilis* and Scotch stocks, and quite a rarity in the form of the *Nicotiana Affinis* or green house variety of the Tobacco plant which at night exhales a delicious perfume, but whose leaves never find their way into commerce. In the forcing-house are quite a number of roses, carnations and smilax in the elementary stages of development.

Sir Wm. C. Van Horne (J. H. Holiday, gardener). This conservatory which has been open to members of the Society and their friends on three Saturdays is unique in its own way. The idea is to represent natural effect, foliage plants and ferns planted out on rockwork being the main features. Amongst the foliage plants

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most prominent is a splendid specimen of *Alsophila regia*, 12 feet high and also a fine *Latania borbonica*. The show of season's orchids is of endless variety and quaint beauty, including *Coelogyne*, *Cattleya trianae*, *Phaius grandifolius*, etc., and there is a very fine display of Azaleas, several measuring 5 to 6 feet through. There is every prospect that during April there will be a grand show of *dendrobium thyrsoiflorum* and *gloxinias*.

Andrew Allan, Esq., (J. Betrix, gardener). This is the largest private conservatory in the city, and on entering the western portion, which is octagonal in shape, one is struck, not only by the extraordinary display of camellias, azaleas, hyacinths and orchids which occupy every available bench and shelf, but by several special types of plants of considerable rarity including a fine specimen of *Strelitzia regia*, several *Hedechyums* and a splendid example of *Cymbidium Lowii* measuring 5 feet across with 22 spikes each holding from 12 to 22 flowers. This part is also well garnished with some exquisite ferns and other rock plants. Ascending a few steps and emerging from a passage adorned with corkwork we enter another octagonal division, where a grand effect is produced by an artistic fountain playing amongst stately palms, bananas, bamboos and other foliage plants. The benches around are covered with orchids, azaleas, cyclamens and all varieties of bulbs, and one very noticeable plant is a fine specimen of *Amaryllis*, while one shelf is full of a remarkably good strain of *Cinerarias*. A neat arrangement of corkwood interspersed with *Ficus Repens* covers the side leading to the hot-house, which is filled with plants of all kinds in various stages of growth. There is also another greenhouse and a rose-house, both well furnished with healthy plants.

H. Montagu Allan, Esq. (J. Dunbar, gardener). Entry is gained to this conservatory by the forcing-house containing an immense array of geraniums, hydrangea, spiræa, hyacinths, tulips and lily of the valley in the process of development, and passing through a grotto tastefully ornamented with corkwork, we reach the conservatory proper, the centre of which is occupied by a fountain of excellent workmanship surrounded by ferns and azaleas in flower. On the left side is a bed of palms dotted with bulbs, narcissus, hyacinths and tulips, and on the right a glorious display of camellias, azaleas and citrus, while the benches around are loaded with orchids, lillium *Harrisii*, cinerarias, primulas and English primroses in full bloom, and three examples of the *Paeonia Moutan*, which with their flowers measuring 10½ inches across are invariably the subject of general admiration. The blossoms of the streptosolin *Jamesonii* trained around the central pillars of the edifice, the overhanging clusters of a very beautiful *Wisteria* and innumerable rustic hanging baskets of ferns complete a scene of perfect enchantment.

R. B. Angus Esq. (W. J. Wilshire, gardener). Before entering the main building we turn aside to the left and inspect the stovehouse, containing a very complete assortment of ferns, crotons, dracænas and pitcher plants, besides fine examples of the *Adiantum Farleyense*, *Pandanus Veitchii*, and the variegated *Anassasa Sativa*. In the centre of the conservatory proper the pièces de resistance are a magnificent palm and an excellent specimen of the *cycas revoluta*, whilst ranged around them

and on the side benches are neatly grouped foliage plants, including such specialties as the *Bonaparte gracilis* and *juncea*, the *Maranta regalis* and the *Anthurium Veitchii*. A wealth of azaleas, cinerarias, cyclamens, anthuriums, etc., in full bloom present a most imposing appearance, and amongst the most effective flowering plants are a fine abutilon (or golden bell), *Rogeria gratissima*, with creamy clusters and a remarkably good *Clivia miniatus*. Connoisseurs will be well repaid by a close study of the collection of orchids, comprising, as it does, *cœlogyne cristata alba*, *dendrobium wardianum*, *cypripedium Dayanum*, *cymbidium lowianum*, and two varieties of the *cattleya trianae*, the *virginalis* in hanging basket and the *Abbottiana* in pot.

Mrs. Burnett (J. Bland, gardener). The handsome vestibule which leads to this conservatory is adorned with a fairy fountain, hidden among fine palms, bananas and ferns, and with benches laden with a bright display of white lilac, double pointsetta and *Sparmania Africana* (or African hemp). Descending a few steps to the main conservatory, we cannot repress our admiration at the delicacy of taste exhibited by the artistic grouping of various combinations of color. The collection of cyclamens, tulips, primulas and hyacinths is specially good, whilst orchids are also in evidence, including fine specimens of the *phaius grandifolius* and the *cypripedium lawrencianum* and *boxallii*. There are several excellent greenhouse hybrids and a fine lot of forced shrubs, such as *stapelia*, *deutzias*, azaleas, *spiraea*, etc. In the rose house downstairs there has been all winter, and still is, a good show, which amply repays the curious visitor, the varieties in bloom comprising *Bride*, *mermet*, *Sunset*, *Pearl des jardins*, *Madame Hoste*, *La France* and *Papa Gontier*.

W. W. Ogilvie Esq. (J. Walsh, gardener). This collection comprises a magnificent array of both stove and foliage plants. Orchids are here in infinite variety, such as *cattleya trianae*, *cœlogne flaccida*, *lycaste skinnerii* and *cypripedium boxallii*, *venustum*, *barbatum*, *hirsutissimum*, *Dayanum*, *insignis* and *lawrencianum* as well as the following anthuriums—*Andrianum*, *ferriense*, *wardii* and *Bennettii*. Among the flowering plants are numerous fine azaleas, cinerarias, *deutzias*, tulips, narcissus, *Amaryllis Johnsonii*, *genista*, *canariensis* and *strelitzia regia*. There are, besides, several good examples of double pointsetta and a lovely *medinilla magnifica* with 25 graceful flowers resembling grape clusters and there is a decided curiosity in a specimen of the *ochna multiflora*—a South Australian flowering plant from whose berries wine is manufactured. There are also several varieties of palms and pitcher plants, and the collection of ferns is specially notable. Amongst the *adiantum*s are *formosum*, *cuneatum*, *Williamsii*, *gracillimum* and *grandiceps*; the *platycerium aethiopicum* is a fine example as well as the bird's nest, an Australian variety. Two good specimens of tree ferns are the *alsophila australis* and the *Dixonia antarctica*.

Mrs. Robertson (W. J. Horsman, gardener). In this conservatory the fuchsias, geraniums, pelargoniums and primulas which are on exhibition would hold their own anywhere, and there is a brilliant show of *deutzia gracilis* and cyclamens, while

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the begonias heliotropes and callas are specially worthy of remark. Among the notable plants we may mention a Euphorbia Jacquiniiflora, Eranthemum pulchellum, Ruellia macrantha, eupatorium, both blue and white, and a Hypericum shrub, and as curiosities the fruit of the Alpine strawberry and a fine arum sanctum (or black calla). At the corners of the building are good examples of the century plant—green and variegated.

Jas. Ross Esq. (S. Ward, gardener). The first impression one receives on crossing the threshold of this conservatory is the taste displayed in effective grouping of colors, and the *tout ensemble* is at all times pleasing. There is a good display of orchids, azaleas, begonias, and cinerarias, an extra show of anthuriums, hyacinths, tulips, narcissus, deutzias and primulas, whilst geraniums are a specialty and the foliage plants in the smaller conservatory are remarkably fine.

Mount Royal Cemetery Co. A visit to the extensive greenhouses of the Mount Royal Cemetery Co., now in full operation, and open to visitors daily from 7 a.m. to 6 p.m. at this season of the year, filled with thousands of plants of every size and almost endless variety, will not only delight the lover of flowers, but will give the critic ample scope to investigate and leave him small room for suggestions. Everything seems to fit into each other. It can only be from a feeling of real pleasure that one is strained to attend to the vast number of plants requiring daily care. Vast numbers of bedding plants are raised every year solely for ornamentation of the Cemetery grounds and lots (probably from seventy-five to eighty thousand), independently of a large quantity of bulbs planted each autumn for early spring decoration. This part of the business is on the increase, and let it be remembered that the whole of this immense output of plants is prepared solely in the proprietors' interest, nothing but the bare cost being expected in return. It is largely appreciated, too, as the steadily increasing demand testifies. Scarcely at any time will a visitor be disappointed at not finding something to interest and please. For some time past the display of Easter lilies has been good, together with beautiful Spireas, Carnations, Roses, Geraniums, Begonias, with an occasional Orchid to lend its enchantment for a brief space of time. Japanese Lilies, Gloxinias, Achimenes, Tuberous Begonias and Chrysanthemums will, in their turn, make their display and continue to be interesting in their diversity. The above, with forced bulbs of nearly all available varieties, form part of the whole which are in daily display. To drive past and make a call at these conservatories during any time of the year, but especially during the winter season, and to feel a welcome, has only to be made known to be extensively taken advantage of. Among the rarer varieties of plants, alongside of their aristocratic, but sometimes equally beautiful, though commoner neighbors, will be found a large and fine collection of the following exquisite hot-house plants, such as Crotons, in extensive variety; Dracœnas, Ferns; some fine Palms; beautiful Pitcher plants (Nepenthes); India Rubber trees, young and old; Anthuriums, one of which is in flower now, with the English explanatory name, "the Flamingo flower." This alone is well worth a visit to see; it has twelve fully expended blooms on it, and its name in

English is given to it owing to its color being almost the same as the beautiful bird it is named after. A small collection of the Cacti is also interesting, if only to the Cactus crank, showing how easily a very fine lot may be got up at small expense, as nearly all this collection has been raised from seed. One very fine plant, in full bloom now, in fact it has not been out of bloom during the past two years, is "Alamanda Schottii." To picture this plant with words is a sort of hopeless task, but just imagine a plant eight feet high and six feet in diameter, clothed with beautiful light green, lance-shaped leaves, and in size measuring from three inches to six inches long by about one to two inches broad, and then nearly cover such a plant with thousands of pure golden yellow bell-shaped blooms, about three inches long by two inches wide, and you have a pretty good picture of the plant referred to. It has to be seen in order to be properly admired, and a visit to Mount Royal Cemetery's conservatories would not be in vain, even if there was nothing else to be seen at the time. That, however, no intending visitor need be afraid of; and besides the countless objects of interest which can be studied at leisure, the utmost courtesy is extended to all. One striking matter that was being attended to during the visit of the writer deserves the thanks of the community, namely, that at intervals, when they are on hand, the Cemetery Trust send what cut flowers can be spared to the Montreal General Hospital for the use of the wards. This, though small in itself, can do and does an amount of good, measurable only to the imagination. There is, perhaps, not another field where such an investment would give a larger return. It becomes a "blessing doubly blessed." As pointed out above, the conservatories of the company are employed for the purpose of raising plants sufficient to decorate the grounds and lots, and to what better or more praiseworthy purpose could such be employed? The best plants of different kinds are raised and used for the purpose indicated, the returns from which are only expected to meet the expense of raising them. This has been appreciated by the constantly increasing demand, and in what better way can a loving friend keep up the memory of a departed and loved one than by planting or strewing a few flowers on the final resting place? Gaudiness and profusion are to be avoided, if possible, in cemetery decoration, but nothing, not even granite, can tell the soul-touching friendship shown in placing a few flowers on the graves of those we love.—*From Outremont Guardian.*

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REPORTS OF FRUIT ADVISORY BOARD.

FRUIT SEASON, 1894.

REPORT OF HOOD BROS., Valleyfield.

Apples. —What is the nature and situation of your soil?	Gravelly and sandy; loam intermixed with clay.
What varieties are commonly grown in your district?	Duchess, Red Astracan, Fameuse, Alexandra, Spy, Baldwin, Greening, St. Lawrence.
What varieties succeed best?	All except Fameuse.
Please give a report on the fruit-trees sent you by the Society through Experimental Farm?	Received no fruit-trees; received 1 Raspberry and 1 Currant; both grew well.
Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?	None.
Have you tried any other new varieties? If so, with what result?	Have tried some Russian varieties; grow well, but have not fruited yet.
Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?	Yes, bad; the ammonial preparation spraying every 10 days.

GENERAL REMARKS.

Last year our trees and fruit were in a bad condition from fungus on leaves and scab on apples. This year our fruit is very clean, and leaves natural, all from spraying.

Pears. —Please mention what varieties are grown in your district, with what result and remarks?	Flemish Beauty; ours grow vigorous, but do not fruit; 10 years planted.
Grapes. —Please mention what varieties are grown in your district, with what result and remarks?	Moore's Early, Moire, Delaware, Concord, Princess, Niagara, Champion; all ripen well.
Plums. —Please mention what varieties are grown in your district, with what result and remarks?	Arctic and Native Blue; but very uncertain; winter kills.
Cherries. —Please mention what varieties are grown in your district, with what result and remarks?	Not extensive.
Strawberries. —Please mention what varieties are grown in your district, with what result and remarks?	Crescent, Captain Jack, Jessie Wilson.

REPORT OF HOOD BROS, Valleyfield.—Continued.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks ?

Any remarks or suggestions to the Society ?

Gooseberries, Black Caps, Red Rasps, Black Currants, Red and White Currants, Lucretia, Dew Berries.

I can give you no suggestions, but I must compliment the Society on their success, which I think is great.

Hood Bros.,
Valleyfield.

REPORT OF ANNE CHAMPOUX, C.S.V., Joliette College.

Apples.—What is the nature and situation of your soil ?

What varieties are commonly grown in your district ?

What varieties succeed best ?

Please give a report on the fruit trees sent you by the Society through Experimental Farm ?

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result ?

Have you tried any other new varieties? If so, with what result ?

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result ?

Pears.—Please mention what varieties are grown in your district, with what result and remarks ?

Grapes.—Please mention what varieties are grown in your district, with what result and remarks ?

Plums.—Please mention what varieties are grown in your district, with what result and remarks ?

Cherries.—Please mention what varieties are grown in your district, with what result and remarks ?

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks ?

The soil is sandy ; situation good.

Duchess.

Duchess.

The fruit trees sent us from the farm were too small to bear fruit, and will not bear before two years yet.

I don't know of any.

We tred the "Fameuse" with no result and also the Green with no result.

The fruit has been affected with fungus ; we washed the trees with coal oil and water mixed together with no result. But we destroyed caterpillars with soot-water or liquid from stove-pipes.

We got a pear tree from the Rev. Father Trappists, Oka, and we had no results ; all the leaves got black and it died.

As regard to grapes, we cannot get grapes to ripen well.

The result is very good, but we must be careful to put plenty of manure.

The result is not good here.

The result is very good.

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REPORT OF ANNE CHAMPOUX, C.V. S., Joliette College.—Continued.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks?.....

Any remarks or suggestions to the Society?.....

Currants give a good result.

The Gooseberry tree is affected with white fungus; we tried different remedies with no success. Could you suggest any?

ANNE CHAMPOUX, C. S.V.,
Joliette College.

REPORT OF GEORGE B. HALL, East Farnham, Que.

Apples.—What is the nature and situation of your soil?.....

What varieties are commonly grown in your district?.....

What varieties succeed best?.....

Please give a report on the fruit-trees sent you by the Society through Experimental Farm?.....

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

Have you tried any other new varieties? If so, with what result?.....

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

Pears.—Please mention what varieties are grown in your district, with what result and remarks?.....

Grapes.—Please mention what varieties are grown in your district, with what result and remarks?.....

Plums.—Please mention what varieties are grown in your district, with what result and remarks?.....

Gravelly, decomposed slate and limestone.

Duchess, B. Pearmain, Red AstracanTetofsky, Fameuse, St. Lawrence, Peach, Alexander, Wealthy, Can. Baldwin, Tal. Sweet.

Yellow Transparent, Tetofsky, Duchess, Wealthy, Winter Cabille, Tal. Sweet.

Have never received any.

Not that I know. I think not.

Pewaukee does very well with me, both in tree and bearing, and fruit keeps very easily, and I call it good.

Fameuse ruined by scab; I cut down the trees and burned them up and found the treatment most effective and satisfactory.

Flemish Beauty and Clapp's; both succeed very well in this region in suitable ground. Clapp's last season were very fine; Flemish subject to scab.

Brighton Moons, Concord, Warden, Delaware and some of Rodger's do well generally; on warm sandy land many other kinds are successfully grown.

We are only just beginning to plant trees. I have three trees brought from England coming into bearing, which promise great things; trees hardy to tips and fruit better than any other I know of grown here.

REPORT OF GEORGE B. HALL, East Farnham, Que.—Continued.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks?.....

None grown.

Strawberries.—Please mention what varieties are grown in your district, with result and remarks?.....

All old standard varieties do well, and many new sorts; our season is very dry at fruiting time and to secure best results, irrigation is necessary.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks?.....

The early black caps and hardy reds, Sheffers colossal, all do exceedingly well, and also Snyder Blackberry if planted in a shady place.

Any remarks or suggestions to the Society?.....

Think more attention should be given to desiccated fruit of different varieties and prizes offered for samples of same at Annual Exhibition.

GEORGE B. HALL,
East Farnham, Que.

REPORT OF JOEL SHURTLEFF, Compton.

Apples.—What is the nature and situation of your soil?.....

Limestone

What varieties are commonly grown in your district?.....

Duchess, Oldenburge, Fameuse, Golden Russets, Red Astracan, Peach, Wealthy Alexander, Tetofsky, St. Lawrence.

What varieties succeed best?.....

Wealthy, Duchess, St. Lawrence Peach, Fameuse, Alexander, Red Astracan, Golden Russets.

Please give a report on the fruit trees sent you by the Society through Experimental Farm?.....

No fruit trees sent me; three red currants, done well this season.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

No.

Have you tried any other new varieties? If so, with what result?.....

I have tried some Russian varieties, but found none that are good keepers.

Has the fruit been affected with fungus or other pest? If so what remedy did you try and with what result?.....

The fruit has been affected with fungus; did not try any experiment. Would like to know the best remedy to prevent the apple scab?

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REPORT OF JOEL SHURTLEFF, Compton—Continued.

GENERAL REMARKS.

I have for the last fifteen years been growing some fine apples; have also been experimenting in testing some keeping varieties, which are required in this locality. I find the Golden Russet, Ben Davis, Canada Baldwin, Pewaukee and Scots winter the best I have grown for keeping.

Pears.—Please mention what varieties are grown in your district, with what result and remarks?.....

Not but a few are grown in this section, I find the Flemish Beauty and Clapp's favourites the best.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks?.....

Not many out-door grapes grown here; I consider the Moore's Early the best grown in this section.

Plums.—Please mention what varieties are grown in your district, with what result and remarks?.....

Cannot grow any grafted plums, except the Moore's Arctic.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks?.....

The black knot does not attack cherries here; not many are grown.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks?.....

Strawberries do well when properly cultivated.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks?.....

Blackberries; all kinds of currants and gooseberries do well in this section.

Any remarks or suggestions to the Society?.....

Can you inform me the best remedy to prevent the apple scab? My apples for the last five years have been badly injured. The Fameuse, St. Lawrence Peach and Canada Baldwin have suffered badly.

J. SHURTLEFF,
Compton.

REPORT OF DAVID RAE, St. Edouard.

Apples.—What is the nature and situation of your soil?.....

Low lying, mostly clay.

What varieties are commonly grown in your district?.....

Common Native Apples, there is a change for better in getting improved hardy tsock.

What varieties succeed best?.....

Common and those grafted on Crab Stock.

Please give a report on the fruit trees sent you by the Society through Experimental Farm.....

Received May 20th, 1 Spiraea Opulifolia, 1 Sarah Raspberry, Hays prolific currant; "Red Grape" planted same day as received; done well with exception of Sarah Raspberry which did not root.

REPORT OF DAVID RAE, St. Edouard—Continued.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

None to my knowledge.

Have you tried any other new varieties? If so, with what result?.....

Yes, Fameuse, as also Alexander, which produce the first years but soon die.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?.....

Black knot on the plums as also fungus on the apples cut away the affected parts.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

None grown here.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks.....

Champion, Concord, White Niagara, done well the last two seasons.

Plums.—Please mention what varieties are grown in your district, with what result and remarks.....

Large Red or Preneau does very well also; Blue too young to answer for.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

Cerise de France, mostly grown. Generally speaking a large crop.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks.....

Sharpless, also Jessie. A white variety, name unknown. Very large crops but too far from markets to profit by them, local demands not much account.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks.....

Currants, Red, Black, White, returns satisfactory. Gooseberries, White Smiths Rifleman Victory Real, generally good crops, last season exceptionally good.

Any remarks or suggestions to the Society?.....

A Gooseberry name unknown was found on an island in Lower St. Lawrence, bush about six feet high, very dense. Fruit light green, medium size, the heaviest cropper that ever came under my notice, in fact it has to be seen to be believed.

DAVID RAE,
St. Edouard.

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REPORT OF SŒURS URSULINE, Roberval.

Apples.—What is the nature and situation of your soil?.....

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What varieties are commonly grown in your district?.....

No orchard so far; two or three have been planted last spring. A few crab apple trees in some parts.

What varieties succeed best?.....

Please give a report on the fruit-trees sent you by the Society through Experimental Farm?.....

Received 19 apple trees, 4 Orel, 2 Cress, 1 Zorovinka, 4 Borovinka, 3 Antonovka, 2 Sklamka, 1 Sunbirsk, 2 Kremers; planted in May, 1893. The two Kremers and the Sunbirsk perished; all the others are promising.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

Have you tried any other new varieties? If so, with what result?.....

We tried the Duchess; Tetofsky, Ben Davis, Fameuse, Whitney's, etc. The greatest part is promising.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

No, but we applied the "Bouillie Bordelai-e" twice during summer and we perceived it had a good effect on the leaves.

Pears.—Please mention what varieties are grown in your district, with what result and remarks.. ..

Grapes.—Please mention what varieties are grown in your district, with what result and remarks.. ..

Mr. E. Otis, of Pointe Bleue, succeeded; but I cannot tell what variety.

Plums.—Please mention what varieties are grown in your district, with what result and remarks.....

We planted a few plum trees; Bradshaw, Reine Claude, Lombard; they look healthy so far.

Cherries.—Please mention what varieties are grown in your district, with what results and remarks.....

Montmorency; same remark as for the plum trees.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks.....

All kinds of strawberries are wonderfully successful.

REPORT OF SŒURS URSULINE, Roberval—Continued.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

All the small fruits, gooseberries, raspberries and currants grow with success. The currant trees and raspberry tree received last spring from the Experimental Farm grew very well and are promising.

Any remarks or suggestions to the Society?

SŒURS URSULINE,
Roberval.

REPORT OF JOSEPH ALLARD, St. Remi.

Apples.—What varieties are commonly grown in your district?

Not in great number, Baldwin, Ben Davis, and Wealthy; in great number, Astracan, Duchess, Peach, Tetofsky, St. Lawrence, Fameuse, Golden Russet.

What varieties succeed best?

Those already named.

Please give a report on the fruit trees sent you by the Society through Experimental Farm?

One currant; more alive.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

No.

Have you tried any other new varieties? If so, with what result?

Longfield with much success.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

Yes. I did not try any, but I will next summer.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

None well succeeded.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

Concord and Champion.

JOSEPH ALLARD,
St. Remi.

REPORT OF C. P. NEWMAN, Lachine.

Apples.—What is the nature and situation of your soil?

Soil is a heavy loam over a clay bottom with limestone, situated on N. bank of the St. Lawrence, Island of Montreal, about 50 feet above river level.

What varieties are commonly grown in your district?

Strawberry (of Montreal), Red Astracan Peach of Montreal, Duchess of Oldenburgh, Alexander, St. Lawrence, Golden Ball, Fameuse and Pommegrise. About half of the trees are Fameuse.

REPORT OF C. P. NEWMAN, Lachine—Continued.

What varieties succeed best?.....

They all grow well. I recommend for profits Yellow Transparent, Duchess, Alexander, Wealthy and Fameuse (if sprayed), the most profitable, more especially Yellow Transparent and Fameuse (if sprayed.)

Please give a report on the fruit trees sent you by the Society through Experimental Farm

Have only had them from last year. They are all growing.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

Mr. John Fraser has made some attempt to propagate an apple (late keeping) he calls La Salle, but I fear it will be of no national moment. I intend to propagate two of my own seedlings the coming year. (See Report Committee on New Fruits, Pom. Soc., Prov. Que., 1894.)

Have you tried any other new varieties? If so, with what result?.....

Have tried Yellow Transparent and Wealthy, which I recommend as two of the most profitable; Tetofsky entirely supplanted by Transparent; Walbridge, worthless; Ben Davis too tender for profit. Russians have so far found nothing to replace any of the 5 varieties mentioned above. I saw a new variety in Dr. Hoskins orchard, Newport, Vermont, called Hart's Seedling. It was a magnificent looking apple and a hardy and good growing tree. I intend testing it.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

The spot on apples mostly on Fameuse has been very bad in this county (Jacques Cartier), and in every orchard of it; destroying hundreds of barrels of what might have been a large crop of the "finest table apple in the world." I believe the Isle of Perrot, which has a few Fameuse, has been so far entirely free owing, perhaps, to its isolated position. I sprayed this year (1894), an orchard containing about 250 bearing Fameuse trees with the Bordeaux mixture and Paris green. I used an ordinary kerosene barrel, and for every barrel full (about 45 gallons), 4 lbs. sulphate of copper, 4 lbs. fresh lime and 4 oz. Paris green. I used a 3/4-inch clock force-pump and a Bordeaux nozzle. I sprayed first when the buds opened and before blossoming; and sprayed 2nd again after the blossoms had fallen. It was very evident that I should have sprayed again 10 or 15 days later, but I failed to do this. I left a row on one side of the orchard unsprayed. Result.—The row I left unsprayed was the worst in the orchard. The rest varied from badly

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REPORT OF C. P. NEWMAN, Lachine—Continued.

spotted to almost clean, but all sprayed trees had a good crop. They were young trees, 15 years old, 24 feet by 30, interlined with Duchess, making them 24 feet by 15. I sold the crop on the tree for \$550 (only the Fameuse.) There were 450 barrels in all picked off the orchard, 150 of which were clean. Considering I had only given the cure half a chance it was as much as could be expected. To every one who saw the orchard at picking time the effects were most conspicuous. In this orchard I had the best loaded and finest Fameuse in this district. I have seen the Fameuse 15 years ago, and in that orchard this year I saw trees that reminded me exactly of what it used to be. It is not the tree that has deteriorated, but the disease has developed for the worse. I found the bud worm bad, especially on the lower branches, and I think he is responsible sometimes for the fruit not setting. In this cure I think we have found an instrument whereby (fruit buds granted) we can almost command a crop; in the past we have too often said when the crop was light, there has been something about the season that has interfered with the setting, and insects and diseases have worked their will without hindrance; but now we have found a way to make it very hot. I intend to spray the coming season (barring accidents) every tree on my place, and that is over 2,000. It will cost over \$100, but judging from work this year it will pay more than tenfold.

GENERAL REMARKS.

I would also suggest an increase in the prizes for seedling apples. The bringing forward of these should be encouraged. We may have to trust in ourselves for a winter apple. Also a prize for seedling pears, plums and grapes.

Pears.—Please mention what varieties are grown in your district, with what result and remarks.....

Little or none grown here. Have some Russians, all of which are hardy and some good bearers. I think we will find a profitable sort in a seedling of a Russian. The quality of a Russian Pear is wretched beyond apology.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks.....

Little or none grown here. Have 3 vines of Adirondack growing wild; not large enough for market. Have seen Green Mountain grape growing at Newport, Vt. Would recommend it for trial.

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REPORT OF C. P. NEWMAN, Lachine—Continued.

GENERAL REMARKS—Continued.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

The European varieties mostly, and they are not a practical success, and also a seedling yellow plum (I think wrongly) called "Yellow Agg"; it requires strong cultivation and thinning to be large, is a great bearer, but wood is not thoroughly hardy. Have tried Moore's Arctic; it is a great bearer, but the tree is very liable to sunscald.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

We had two varieties of cherries growing in great profusion, but some years back the black knot destroyed them. I do not think that branch of orcharding will ever recover in this locality. They were said to be from Normandy, Red and Black.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks.....

Only grown for home use.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

Only grown for home use.

Any remarks or suggestions to the Society.....

I would suggest, and I know that it is entirely outside of your work, that the Society in good time arm and equip a man with a good spraying outfit. He has a good field in the near vicinity of Montreal. It is the only way to reach the conservative farmer; but you can reach him this way. I think it would pay expenses. I take estimate rough, there are 100,000 fameuse trees in the near vicinity of Montreal, and these can be increased in profit \$1 each a year. And some of them even are cutting these trees down. It seems to me a serious national loss.

C. P. NEWMAN.

REPORT OF D. WESTOVER, Frelighsburg.

Apples.—What is the nature and situation of your soil?.....

Soil light gravelly loam; a South West exposure. Natural fruit land, seedlings growing all over and have to be constantly cutting them down as brush in meadow and pasture.

What varieties are commonly grown in your district?.....

Red Astrachan, Duchess, Tetofsky, Peach, Alexander, St. Lawrence, Foundling, Wealthy, Fameuse, Golden Russet, Ben Davis, Blue Pearmain, Solomon Sweet, Wagner, Pewaukee, Scott's Winters, McIntosh Red, Yellow Transparent, Longfield, and some others.

REPORT OF D. WESTOVER, Frelighsburg—Continued.

What varieties succeed best?.....

Any of the above mentioned succeed well with me.

Please give a report on the fruit trees sent you by the Society through Experimental Farm.....

Have only received a few cherry seedlings last spring, they seemed inclined to mildew towards fall, however.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

1st No.

Have you tried any other new varieties? If so, with what result?.....

Have tried a good many of the "New Russians." Many of them large and fine in appearance, but flavor poor and nearly all fall apples of which we have too many already. The trees are generally hardy and early bearers.

Has the fruit been affected with fungus or other pest? If so what remedy did you try and with what result?.....

We have all the grubs and fungus Borers, Caterpillars, Codling moth and leaf Bollers, and I know of no one who has systematically tried any of the remedies now advised.

GENERAL REMARKS.

Our fruit crop this year was so much affected with spot of fungus as to be hardly worth gathering, Fameuse particularly. I intend trying spraying in 95.

Pears.—Please mention what varieties are grown in your district, with what result and remarks.....

I have grown the "Flemish Beauty" and find it hardy and a good bearer. The Clapp's Favorite also seems to do well but have not had it so long. I am now trying the Anjou, promises well, and is a later keeper.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks.....

Many of the earlier varieties of the grape are successfully grown here. I would mention the Delaware, Moores, Early, Champion, Lady, Enmelan, Worden, Niagara, etc.

Plums.—Please mention what varieties are grown in your district, with what result and remarks.....

There are very few plums here at present. Young trees of the Dr. Soto, Moore's Arctic, Abundance and Lombard are being planted but nothing definite can be said of their success or failure yet.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks.....

Only natives are growing here to my knowledge.

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REPORT OF D. WESTOVER, Frelighsburg—Continued.

GENERAL REMARKS—Continued.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks.....

Quite a few strawberries are grown in private gardens principally of the Wilson and Downing varieties.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks....

Any remarks or suggestions to the Society.....

D. WESTOVER,
Frelighsburg.

REPORT OF N. JOHNSTON, Black Cape.

Apples.—What is the nature and situation of your soil?.....

Sandy loam, southern exposure.

What varieties are commonly grown in your district?.....

Duchess, Peach of Montreal, Wealthy, Fameuse.

What varieties succeed best?.....

Duchess of Oldenburg Wealthy.

Please give a report on the fruit trees sent you by the Society through Experimental Farm.....

Received none.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

No.

Have you tried any other new varieties? If so, with what result?.....

No.

Has the fruit been affected with fungus or other pest? If so what remedy did you try and with what result?.....

Fameuse slightly affected, but tried no remedies.

Pears.—Please mention what varieties are grown in your district, with what result and remarks.....

Very few grown in this locality. I have one Flemish Beauty tree, had quite a number of pears last fall.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks.....

None.

Plums.—Please mention what varieties are grown in your district, with what result and remarks.....

Common blue seedling stands the climate well, tried greengage but it does not stand the climate, set out several last Spring, Moore's Arctic, Bradshaw, &c.

REPORT OF N. JOHNSTON, Black Cape—Continued.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks.....

Cherries were introduced here several years ago and do very well. Variety May Duke I think. Some of the old trees badly affected with black knot, but the younger trees do very well.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks.....

Very few grown, plenty wild ones.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks.....

Gooseberries and all varieties of currants do well.

Any remarks or suggestions to the Society.....

I have now over 300 apple trees in my orchard. Duchess, Wealthy, Yellow, Transparent and a few other varieties. I am satisfied that we have a good soil and climate to grow the hardier varieties of apples and plums.

N. JOHNSTON,
Black Cape.

REPORT OF G. B. EDWARDS, Covey Hill.

Apples.—What is the nature and situation of your soil?.....

Yellowish loamy soil. Well adapted for fruit tree culture.

What varieties are commonly grown in your district?.....

Yellow Transparent, Duchess, Peach, Fameuse, Wealthy, Haas.

What varieties succeed best?.....

Yellow Transparent, Duchess and Wealthy.

Please give a report on the fruit trees sent you by the Society through Experimental Farm.....

I have only received one apple tree, which was called a "Russian apple" about six or seven years ago. It has fruited twice; was ripe in September; very large; green with red cheek. One of the finest apples I ever tasted.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?.....

Some experiments are now being carried on. No results to report yet.

Have you tried any other new varieties? If so, with what result?.....

None.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

Yes. Peach and Fameuse are affected with "black spot." Have tried spraying as recommended with good results.

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REPORT OF G. B. EDWARDS, Covey Hill.—Continued.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

None. I have tried several times but have been unsuccessful so far.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

Delaware, Brighton, Lady, Duchess, Moor's Early.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

The only successful plum culture tree, is that which is carried on with fruit grafted on our native plum tree. We have Lombard, Moore's Arctic, Washington, Yellow Egg, Bradshaw.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

Montmorency.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks

Crescent seedling, Williams, Gaudy, Sharpless Manchester.

Any others small fruit.—Please mention what varieties are grown in your district, with what result and remarks

None.

REPORT OF J. A. CAMIRAND, Sherbrooke.

Apples.—What is the nature and situation of your soil?

My soil is a warm Loam, where a ledge breaks out on spots, situated on the South Bank of the St. Francis River. Fruit does well here.

What varieties are commonly grown in your district?

Fameuse, St. Lawrence, Alexander, Wealthy, Tetofsky, Red Astrachan, Duchess, Spies.

What varieties succeed best?

Tetofsky and Duchess.

Please give a report on the fruit trees sent you by the Society through Experimental Farm

The trees are all living and have made rapid growth. I sent part of them to other parties in this vicinity and all are doing well.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

Not any that I am aware of.

Have you tried any other new varieties? If so, with what result?

I have a number of new varieties commencing to bear, I can give no result yet, will later on.

REPORT OF J. A. CAMIRAND, Sherbrooke—Continued.

Has the fruit been affected with fungus or other pest? If so what remedy did you try and with what result?

Fruit has not been much affected here this season by fungus or other pests. I did not apply any remedy.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

None grown in this section.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

Very few grown, do not know what varieties.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

Very few grown, Bradshaw and Lombard.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

Few young trees planted but none bearing yet, Early Richmond and Louis Philippe.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks

Sharpless, an abundant crop.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

Black, Red and White currants. Gooseberries the largest crop for years.

REPORT OF AMBROISE TÉTREAULT, Louiseville.

Apples.—What is the nature and situation of your soil?

Compact clay soil, and low with few hills.

What varieties are commonly grown in your district?

Irish Peach, Duchess and Wealthy.

What varieties succeed best?

Duchess and Irish Peach.

Please give a report on the fruit trees sent you by the Society through Experimental Farm

I had none.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

Yes. I have with the Pomme Grise seeds. Results promising enough.

Have you tried any other new varieties? If so, with what result?

Yes. The Russian Arabka succeeded well, but the apple is a bad keeper.

REPORT OF AMBROISE TÉTREBAULT, Louiseville—Continued.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

Yes; in some places. Used no remedy.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

None.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

Have been planted some years ago; but seldom ripened. All these vines were destroyed by the owners.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

Common Canadian plums. Generally failing since few years. Do not ripen.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

None grown here.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks

Succeed well. Wilson's is the best.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

AMBROISE TÉTREBAULT,
Louiseville.

REPORT OF D. BÉGIN, M.P., Rimouski.

Apples.—What is the nature and situation of your soil?

Sandy loam, slightly inclined to the North, sheltered by large trees, from East winds.

What varieties are commonly grown in your district?

Peach, Duchess d'Oldenburg, Yellow, Transparent and Crabs succeed very well and some other varieties of which I have lost the names.

What varieties succeed best?

Although I received the plants too late, three have taken and the fourth may live.

Please give a report on the fruit trees sent you by the Society through Experimental Farm

No.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

Have you tried any other new varieties? If so, with what result?

No, I planted several varieties of apples last Spring which took well. I will be able to give you particulars later on.

REPORT OF D. BEGIN—Continued.

Has the fruit been affected with fungus or other pest? If so what remedy did you try and with what result?

No, except the Gooseberries which are attacked by a small green caterpillar, which is destroyed by Hellebore.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

We have none.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

There are none.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

I think all the varieties will succeed here. We gather blue and white which ripen well. I have a good many young plum-trees which promise well for the future.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

The cherries from France succeed very well here.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks

Strawberries produce fruit in abundance.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

The black gooseberries produce much excellent fruit.

D. BÉGIN.

REPORT OF LOUIS ROY, St. Camille.

Apples.—What is the nature and situation of your soil?

Yellow loam, dry and elevated; sloping towards the southeast.

What varieties are commonly grown in your district?

Duchess, Baldwin, Fameuse, Yellow Transparent.

What varieties succeed best?

Duchess and Baldwin succeed the best.

Please give a report on the fruit trees sent you by the Society through Experimental Farm

Four Wolf River, 5 Arthanska, 2 Sinibirsk, 2 Ray Ripka, 2 Tetofka.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

Not that I know of.

Have you tried any other new varieties? If so, with what result?

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REPORT OF LOUIS ROY, St. Camille,—Continued.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

No.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

One tree which I have had for some years.

LOUIS ROY,
St. Camille.

REPORT OF A. O. CAMIRE, St. François du Lac.

Apples.—What is the nature and situation of your soil?

Strong land and sandy loam.

What varieties are commonly grown in your district?

Small apples of Siberia.

What varieties succeed best?

Siberia.

Please give a report on the fruit trees sent you by the Society through Experimental Farm

They have taken well and give good promise for the future.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?

No.

Have you tried any other new varieties? If so, with what result?

No.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result?

Yes. The fruits have been affected with fungus. There was no remedy tried.

Pears.—Please mention what varieties are grown in your district, with what result and remarks

There are none.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks

There are very few.

Plums.—Please mention what varieties are grown in your district, with what result and remarks

The crop has been very bad. The plums fell before ripening.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks

Good crop.

Strawberries.—Please mention what varieties are grown in your district, with what result and remarks

Very little.

Any other small fruit.—Please mention what varieties are grown in your district, with what result and remarks

There are only a few.

A. O. CAMIRE,
St. François du Lac.

REPORT OF DR. M. GRIGNON, St. Adéle.

Apples.—What is the nature and situation of your soil?..... Yellow loam ; rocky.

What varieties are commonly grown in your district?..... Wealthy, Peach Fameuse, and some unknown varieties.

What varieties succeed best?..... Peach Apples. The trials of the other varieties have only begun.

Please give a report on the fruit trees sent you by the Society through Experimental Farm..... I can say nothing, as they have not produced any fruit. They have a good appearance.

Has any grower in your district made any efforts to originate a new winter apple? If so, with what result?..... Yes, with good results.

Have you tried any other new varieties. If so, with what result?..... Yes, with good results.

Has the fruit been affected with fungus or other pest? If so, what remedy did you try and with what result? No.

Pears.—Please mention what varieties are grown in your district, with what result and remarks..... No.

Grapes.—Please mention what varieties are grown in your district, with what result and remarks..... No.

Plums.—Please mention what varieties are grown in your district, with what result and remarks..... Red of this country, good.

Cherries.—Please mention what varieties are grown in your district, with what result and remarks..... Cherries of France do not agree much with the soil or climate.

Strawberries.—Please mention what varieties are grown in your district, with result and remarks..... Field and Wilson. The latter grows well.

Any others small fruit.—Please mention what varieties are grown in your district, with what result and remarks..... Raspberries in abundance. They sell here for \$8,000 to \$10,000 per annum.

DR. M. GRIGNON,
St. Adéle.

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The following articles to, and including "Packing Apples for Export," appeared in the Horticultural Page of the Journal of Agriculture :

BUDDING.

Among the first requisites for the amateur to have at hand for the purpose of performing the operation of budding successfully are some plant or plants in the proper condition to work ; that is in the most suitable stage of their growth, so that the union will at once commence to take effect. In the following remarks an attempt has been made to explain these conditions. A fixed date cannot be given when operations should commence or when they should terminate, but during the months of July and August, nearly all sorts of fruit trees, may be safely operated upon taking it for granted that both the stock and the variety intended to be budded are in a healthy, vigorous condition, when the bark of both stock and bud will run.

To explain the term "run" it may be stated that the bark is in this condition when the boys are able to make whistles with the young shoots from the basswood, ash, &c. Upon examining the condition that the sap is in, immediately beneath the bark, it will be found in nearly every instance to be in a viscid state ; resembling to the touch very much like a thin coat of mucilage ; on examining the extremity of the growth it will be found to have in nearly every instance terminated its growth. At this stage the layer of cambium (the coat of mucilage like sap referred to above) is in the suitable condition to form a union, with the layer of the same material, still adhering to the inner bark of the bud. If the process has been performed without allowing the operated parts of stock or bud to become dried, through too long exposure, success will have been attained so far.

It will be necessary now, to explain the operation itself. Beginners will require a little time and practice before the operation becomes an easy one. In their first efforts they may consider themselves no adepts at budding, but if they persevere, everything will come handy to them and it cannot fail to be the means of a great deal of pleasure to any amateur who becomes a successful budder. It is a good way to get into the proper use of the knife, by practising on subjects by the wayside, when they are in proper state.

Ash, oak, elm, or any of our common deciduous trees can all be budded in the proper season, but it must be kept in mind that a basswood bud will have to be inserted beneath the bark of a basswood shoot ; an elm-bud beneath the bark of an elm shoot ; and so on with other trees.

Such vegetable miracles as pears growing on plums and plums on apples, &c., it will be well for the amateur to take no notice of.

Common shield budding is not only the simplest but it is also the most approved

method and hence the following explanations will refer more particularly to that mode, all the other styles of budding being modifications of the same thing, varying in detail, but depending upon the same conditions for success.

To commence operations it is necessary to have a strong and sharp pruning knife to trim off any branch, that may be in the way; a sharp budding knife, a stick of buds and some tying material such as raffia.

First make the vertical cut on the stock about one inch long, then the horizontal cut about half an inch long, forming the rude shape of the letter T. (This method is also termed T budding.)

In making these incisions it is well to bear in mind to cut the depth of the bark only and not to injure the wood beneath the bark any more than can be helped. Practice and observation will bring the operator to know just how deep to cut. The next thing is to prepare the bud, this is done by inserting the blade of a sharp budding knife, about three quarters of an inch beneath the leaf stalk and cutting inward nearly half the diameter of the small branch; bringing out the knife about half an inch above the bud. The little woody part remaining inside the bark has now to be removed and care and practice will here be found necessary, so that the bark of the bud about to be made use of will not be injured.

After a little practice it will be easily performed, without injury to any part.

If there is a cavity beneath the bud the root as it is called is gone and the bud is of no more use, if the bark is running well, this mishap rarely occurs. Next place the thin bone edge of the budding knife beneath the corners lift them gently and slide the knife down each side of the vertical cut.

Take the prepared bud, holding it by part of the leaf stalk and insert it into the incision (where the bone handle had been taken out) and push it down to its place, cut the upper part of the bark of the bud, to fit even with the cross cut on the stock.

When this is done it must be bandaged up immediately, taking care to tie it firm enough that the air and wet will be excluded. Do not tie on top of bud. The order in which the different varieties will be most likely to come in, will be 1st. cherries, next plums, apples, pears, roses, &c.

In keeping buds in good order and fresh until they can be used it is a good plan first to wrap them in wet paper, several plies, then about the same amount of dry paper on the outside, leaving the lower ends sufficiently out of the package, to be able to take hold of one and pull it out as required.

A great many of such operations can be performed in the time it takes to tell how to do it, but it is to be hoped that the above few remarks may be of some interest to the beginner.

F. ROY.

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A FEW REMARKS ON STRAWBERRY CULTURE.

Any one in possession of an acre or more of good deep land, underdrained, and if possible within reach of a sufficient supply of water for the purpose of irrigation at the time the strawberry plants require that supply in no stinted allowance would with the above requisites make a success that would satisfy the most ambitious strawberry grower. The above would form an ideal strawberry farm to begin with. The process of preparing the land for successful strawberry culture differs so little in the way of preparing the ground from the manner explained in a previous article on preparing the soil for fruit culture in general that it need not be all repeated here; only the strawberry will be able to take the benefit from a very much more liberal application of well rotted manure worked well into the soil, than was advised in the preparation of the soil for any of the tree-fruits such as apples, &c. A very liberal quantity can be applied if properly made and properly incorporated with the soil. The soil best adapted to the successful culture of the strawberry is a rather heavy loam; and in nearly every place where this sort of a soil is to be found it is deep; and the strawberry demands that the soil must be prepared deeply and well cultivated; loosening the bottom soil to the depth of two feet at least; never turning up this bottom soil. How many have impoverished their land for years and years by simply trenching up the poor bottom soil, and putting the good soil away down in the bottom? It is when the plants are young that they require all the nourishment they can get, and the cultivation of any crop properly is in the assisting of nature to supply the demand made on the soil. Any one may observe that nature supplies all her fertilizers; or nearly all of them that we term fertilizers from the surface of the soil, distributing them with the rains and chemical action to all parts surrounding the roots and that especially where young plants start life near the surface. With the proper appliances and a more extended knowledge of the requirements of our crops we could apply a great many of the fertilizers now in the market with decided benefit by giving it to our crops in smaller quantities and oftener. Natural fertilizers have all to undergo the process of decomposition; in fact it is during that very process that the valuable properties of decaying vegetable matter are being continually transferred to the surrounding soil; collecting as they advance; or distributing as the case may be their own and other suitable elements of plant food to invigorate and sustain the crops in their immediate vicinity. The whole meaning of the term "cultivate" is in assisting by every available means the supply of plant food, together with keeping down all other growth but that intended; vigorous determined war must be continually practised against all weeds. The proper way to conduct that war is to never allow the enemy to show his face on the place, or get possession of a single corner; Scuffle and hoe before the weeds do more than germinate is the most successful means of wholesale destruction to them. This serves the double purpose of killing weeds and in dry weather prepares the surface of the soil to imbibe a considerable amount of moisture from the passing atmosphere.

The mode of propagating the strawberry in quantity perhaps can be worked out by each according to his own conveniences. A good plan is to raise young plants in pots and set them out early in August in well prepared soil. Keeping it clear of weeds afterwards being about all that is required, until they commence to send out runners next season. These must be controlled. If enough plants were set out at first the runners should at all times be removed unless those wanted for future planting.

The successful cultivation of the strawberry requires a new plantation to be set out each summer; or as early as it can be accomplished properly. A piece of land that has just been cleared of early potatoes and which has had the benefit of clean culture, will be found a good place to select; that is, if all the other requirements are favorable. The choice of varieties is of importance; and to do so it will be found necessary to experiment on this line and choose the varieties which succeed the best. When the varieties have been selected for the future plantation the proper care in making good is to be first considered. The writer has found it a very good plan to treat all the layers or runners just as he would a batch of cuttings. In doing this it is advisable to prepare the cutting or nursery bed for the reception of the runners making up a suitable compost of rich friable soil for this reception. This nursery bed is better placed on the level and a hotbed frame placed over it to shelter the plants from side winds; covering them after planting with frames (the size of the sashes), covered with cheap unbleached calico. This serves the purpose of shade and still allows sufficient light while the runners are getting their roots established. The runners may be sorted, placing all the good and well rooted ones together and making another batch of those which have no roots or very small ones. It is well to allow two or three inches of the runner stem to those without roots for the purpose of firming into the soil. The distance advisable for this operation between the plants I would recommend four inches apart each way for the well rooted ones, and three inches apart each way for those scarcely or not rooted. To keep them sufficiently watered and close will be all that is required until they show signs of taking hold of the soil by making new leaves, when it will be advisable to gradually harden the plants by giving them more air. In about three or four weeks they will be sufficiently hardened off to allow the removal of the cotton frames. Some of the larger and better plants will be established sooner, and can be exposed as soon as they can stand the removal of the shading without becoming wilted. This plan I consider preferable for home propagation to the potted system as it conserves your efforts and you can raise a far larger number of plants with less labor. The plants too are better, as they suffer no check such as potted plants do when they become pot bound at the roots. When a sufficient stock of young plants has been obtained, attention should be at once given to the ground they are intended to occupy; in having it prepared in the best possible manner. This operation cannot be performed too thoroughly, as every ploughing and cultivating especially at this season is improving the land operated upon to an extent perhaps realized only by the few. The opinion of the writer is that a well worked piece of land without manure will

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give better results than a poorly worked piece of land with manure; but here as in most other instances both are better and are both highly recommended in strawberry culture. After the operations of ploughing, subsoil-ploughing, and harrowing, the manure should be applied to the ground and evenly spread all over; pass the cultivator both ways, and harrow thoroughly until the soil and the manure (which should be the best and in the best rotted condition) be thoroughly incorporated together. The mechanical condition of the soil is being brought about right also, as the strawberry likes a firm soil to grow in. The roller may then be passed and planting out on the first favorable opportunity which would be just before rain if possible. Do not work on this piece of land at any time if the soil is too wet, by doing so you are not studying your own interests. Planting out just before rain has the advantage every time.

In planting out it is a good plan to use a marker and the distance I would recommend between the rows, is two feet; and one foot between the plants in the rows. I do not recommend horse culture; after the place has been properly prepared, hand culture will pay after. There is so much ground in a manner wasted with horse culture that the extra crops raised on the same space will go far to pay for the extra expense. I would recommend to plant three rows and miss the fourth; sowing corn on the fourth row the following spring. This row of corn will be found of advantage by shading and sheltering in summer and winter. The corn row space can be utilized the following spring in applying the soil as top dressing between the plants in the three rows. This top dressing is an advantage as the strawberry plant is inclined to make a little stem, rising above the ground, (in fact doing as many have done before them) getting a little above their business. This top-dressing is thus an advantage as a great many of the principal roots are very near the surface. This is an additional reason for hand culture, as it is not easy to cultivate with a horse cultivator without destroying lots of roots.

The second year's crop is the one that pays; and it is not recommended to keep it longer; consequently the necessity of an annual plantation being put down.

F. ROY.

BY WHAT MEANS CAN THE LOVE OF HORTICULTURE BE BEST ENCOURAGED, ESPECIALLY AMONG OUR YOUNG FOLKS?

It would be difficult to find a child who does not love flowers; but how to foster and cultivate that inherent love so that it will take the form of a hobby, that in his maturer years, when other pleasures may be strewn along his path, he will still cling to and continue to love and occupy himself in it to his own and others happiness and advantages in many ways; being a real health-giving as well as a pleasant hobby. The above subject is worthy the attention of all horticultural societies,

whose proper functions should be at all times directed towards the improvement of all matters appertaining to the subject of horticulture; but also to the making of horticultural matters more popular in the very widest sense. The question raised in the above heading has in one instance had a sort of an echo by way of an answer, in so far as it goes at least that at a recent meeting of the Montreal Horticultural Society and Fruit Growers' Association of the Province of Quebec it was suggested that the Society admit juvenile members at a very nominal membership fee. That said juvenile members be allowed to compete for a set of prizes amongst themselves. That two thousand tuberous-rooted begonias be distributed amongst these juvenile members belonging to the different schools in the district, gratis; that the girls be allotted one thousand roots, and the boys one thousand roots; that the School Commissioners and teachers be petitioned to assist in obtaining members; that the juvenile age be below fifteen years; that each school compete for prizes if the requisite number of members be obtained, and that there be a set of champion prizes besides. The bulbs to be delivered to the intending competitors on or about the Queen's next birth-day. That each member will be furnished with one bulb, with the number corresponding to his or her member's number, with printed instructions how best to grow it through the summer. The exhibition of these to be held along with the Society's exhibition in September, 1895. The above arrangements are in every likelihood to materialize, if the co-operation of the School Commissioners and teachers can be secured to favor the speculation. There is an opportunity here to introduce the horticultural wedge as an educator which it is hoped will be worked for all it is worth. How often have such undertakings proved to be of immense success principally through the infusion of young energies and young hopes. From amongst the ranks of the young, not only in horticultural, but in far weightier matters, must improvement be looked for; and it is sincerely hoped that it will not be looked for too long or in vain.

In many cases, to do a mere duty when it is imposed on you, or when you are hired to do something, if that duty is merely executed according to the letter, and very little spirit is instilled into its execution, you will observe a want, a flatness, a disinterestedness, a very deadness take, as it were, possession of the whole concern. What is wanted is something to arouse the more cautious though older member to exert himself again; something to strike up in quicker time, and to be there in time, and where else can we expect to find our hopes realized in all these acquirements except from our young members. Let us be up and doing then, not only advocating the horticultural hobby, but in all the ways within our reach assisting the cause in every way possible. A great deal has been achieved already, but the field is large, and a great deal more can be done. There is no danger of exhausting the field nor of running out of subjects of importance to operate upon.

Let every member, senior or junior, put their shoulder to the Horticultural wheel and give it such a turn round in the year 1895 as will be worth recording and trying to beat. Co-operation can do it. Everyone doing his whole duty will make a success of all our efforts—a success that all concerned will be proud to have to do with.

F. ROY.

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HOW CAN A KNOWLEDGE AND A TASTE FOR HORTICULTURE BE BEST ADVOCATED AMONGST OUR RURAL POPULATION?

It is only too painfully manifest to the most casual observer that our rural cottages and farmers' houses all over the Province are destitute entirely, or nearly so, of any attempt at out-door or horticultural embellishment whatever, with a very few exceptions. The rural cottages above referred to are those more especially owned by families who reside in and are employed in the neighborhood. Generally speaking, the cottage or villa occupied by the city merchant or clerk during the summer months is better provided for horticulturally, having generally shady lawns, comfortable walks, pleasing flower-beds, etc., and the wonder is that the example is not felt farther. Perhaps, if a few of the more essential features requisite around a cottage or farm-house were pointed out, and also a way suggested whereby these features might in most instances be obtained at a trifling cost in both labor and material, some of the apparent difficulties may be in a measure removed. The same principles will be necessary in guarding us, whether the house is that of the farmer or that of the cottager; only in the case of the cottager whose lot is generally small, there will be less room for operations and variety. The whole of the surroundings may be treated under these different headings, viz.: 1st, location of house and buildings; 2nd, proper drainage; 3rd, convenience to a supply of pure water; 4th, ventilation of house and buildings; 5th, necessary roads; 6th, planting trees for shelter and ornament; 7th, planting of fruit trees and small fruits; 8th, making and keep of lawns; planting of shrubbery and flower-beds; 9th, vegetable garden. The location of the house and other buildings required on a farm is of the very first importance. The site should be chosen after very mature consideration, and consultation should be freely indulged in with every authority obtainable. The position of the house and other buildings should be decided on, principally as regards the healthiness of the position.

Most authorities agreeing that a loose subsoil that can be efficiently drained is preferable to one of a tenacious character. Drainage in every case should be one of the unalterable laws efficiently and firmly enforced. And let it be mentioned here, simple as it may appear to many, that there is drainage, and drainage. The drainage of a house or cottage, to be properly constructed, requires to be properly thought out and rightly executed. To take away all superfluous moisture from the foundation of a house or cottage, and not at any time to react as a chimney poisoning the inmates with foul air, is one of the many points in constructing a house drain. This is not exactly horticultural, but it is of equal importance. It is also here strongly advocated never to build a cellar below the house on your farm, or pollute in the country. Land is not so scarce that it is necessary to be so economical. By never constructing a cellar below your house you will never pollute the air with the fumes from decaying vegetation, or other unhealthy vapors, slowly poisoning yourself in your rooms above. It is about as economical, and far better in a sanitary point of

view, to construct your root-house as a separate building; also your dairy, which may be pretty convenient to the house, in fact it may be attached, if house and dairy are properly ventilated, ventilation coming, in my estimation, next in importance to drainage. What a cruel mistake to stop up every little hole whereby a breath of fresh air can enter! Cruel it is, and we have to stand the punishment. Ventilation in house, in dairy, in stables, in root-house, is only imperfectly understood, and practised in a very slipshod manner. We have not attained perfection in either of these necessities by a long way.

Next in importance to choosing the site of a house is the pure water supply. In different localities that will best suggest itself to the proprietor: if the supply is to be obtained from wells in the neighborhood of the house or outbuildings, sufficient provision will have to be guarded against any sewerage soakage reaching the wells. The front of the house should, if possible, face the sunny side, which is the pleasantest; if attainable, the barns and stables should also face the same exposure, and be so arranged that the buildings themselves would shelter the stock to the very best advantage. Planting trees of the proper sorts and in their proper places, will assist in thus sheltering the buildings and their occupants. The trees most suitable for wind-breaks are our native evergreens; cedars planted closely together, and not too close to the building, answer the purpose admirably. A few taller deciduous trees planted outside the cedar belt, together with an occasional pine, spruce or balsam, will help to vary the appearance of the wind-break and make it more ornamental. Now, all these can be had for the trouble of going and lifting them out of your own or your neighbor's bush. It seems to take several generations before the feeling of destroying trees can be replaced with one of planting trees in the Canadian heart. Individually and nationally this tree-planting problem deserves much more attention than it has received in the past. A national tree-planting policy and preservation of the forests now left should be vigorously inaugurated. How many thousands of acres are fit for nothing else; and these could be replanted and brought up in value at a trifling expense.

In continuance of the somewhat rough outline partly shadowed in the article commenced p. 18, vol. 17 of the *Journal*, the principal desire of the writer is to foster a more intense love amongst our rural inhabitants of beautifying their surroundings horticulturally. This can be accomplished by giving the matter first due consideration; and afterwards putting the plans decided upon into practice. If the few hints thrown out in these lines on the subject will help in any way to encourage a few to make a start, the effort will not have been lost. As mentioned before, many of our farm houses and rural cottages are destitute of the smallest attempt of decoration which are within the reach of every one having a house in the country. For instance what is prettier than a vine clad verandah round the south, east and west of such a house or cottage. It is the exception with cottages which are blessed with a verandah to have any ornamental vines planted on them. The bare wood work is

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in nine cases out of ten left unadorned. With the wealth of native plants suitable for this purpose together with numbers that can be added at comparatively small cost, the wonder is that they are not found in profusion round every cottage. A list of hardy climbing plants and climbing annuals suitable will be appended. A great many varieties of fruit trees and small fruits could with both pleasure and profit be cultivated on the sides and ends of our buildings. None of these being climbers they would require to be trained to such positions where they would have a very pretty effect. It is also probable that in such positions we could succeed with some sorts of fruits which are not hardy as ordinary standards. The finest apples, pears, plums, &c., are produced by this manner of cultivation in the gardens of Scotland, where not a few would fail to produce fruit at all if grown on ordinary standard form. With a verandah properly planted with beautiful climbing plants there is less need of shade trees in the immediate vicinity of the house or cottage. Trees, when they become large and are in too close proximity to the house or cottage, are always a source of dread during violent wind storms and are positively dangerous during such. Consequently, a tree is in a better position if planted further away from the building than its own height when full grown. It is easy to seek the shade and avoid the danger from trees planted too near to buildings. To commence beautifying the surroundings of house or cottage by planting vines, trees, shrubs and flowers, will open up and quicken the sense of all that is elevating and will awaken the desire to obtain a higher form of grace and elegance than has yet been obtained. What a grand effect would be produced if each and all of our rural residents would at once appreciate the joy and pleasure to be derived from a tastefully planted and neatly kept garden and grounds. These may be of the most simple as to form, and of the most inexpensive as to variety, but they may be none the less beautiful through their simplicity or cheapness. The choice is almost endless in variety. How much happiness and pleasure is experienced in trying to give to our homes something of that grace and loveliness, something that will intensify our heart feeling to the dearest of all places, home? How can we better do our share in obtaining that happiness than by surrounding our homes with as many as we can accommodate of nature's beautiful flowers and fruits. To this end I know of no way where an effective beginning can be made to better purpose than our rural cottage verandahs, and for the purpose of encouraging those who may not know the vines and other plants available for the purpose the following list is subjoined.

Hardy perennial climbing plants, of those suitable if trained on a verandah.

Ampelopsis or American Ivy.

Ampelopsis Veitchii, or Japanese Ampelopsis.

Clematis—Virgins Bower.

Clematis—Many garden varieties, all colors these are beautiful climbers and deserve a place in every collection.

Aristolochia siphon, or Dutchman's pipe.

This plant deserves a place everywhere for its beautiful clean Insect proof foliage.

Cobea Scandens.

Maurandya Barclayanat.

Hardy Climbers seed to be sown in the open ground.

Lonicera sempervirens or Trumpet
Honey suckle.

Roses in Variety.

Tender climbers mostly annual sorts
and require to be raised from seed.
These may be sown in a box or flower
pot in the window or in a hotbed in
April.

Morning glory.

Sweet peas.

Tropæolums or Nasturtiums.

Japanese Hops.

Cypress Vine.

Hyacinth Beans.

With a selection from the above list a very pretty effect may be obtained.

F. ROY.

LILIUMS OR LILIES, NAT; ORD; LILIACEÆ.

This genus, type of an extensive order, contains upwards of sixty species. Nearly every country in the northern hemisphere produces some species, but it is during the last fifteen years that some large collections have been grown on this continent for commercial purposes. The greatest need now for Lily culture is a thorough knowledge of their requirements, as they are susceptible to great improvement under right treatment and to quick decay under bad treatment.

CULTIVATION.

Lilies, with few exceptions, are of easy culture, especially so after they are established. In the open ground, they are not attacked by insects, they are in fact shunned by all destructive garden pests and they stand drought and excessive rains without injury. Although not always necessary to obtain success, a few points here will advise the planter.

1st. Plant the bulbs five to six inches deep, in deep, mellow well pulverized soil.

2nd. Keep the soil well worked and free of weeds.

3rd. Good drainage is a necessity as nothing will injure the bulbs more than water standing round them.

4th. In planting, fertilizers and fresh manure should never be used. Old manure, well mixed with the soil is desirable with a handful of sand under and round the bulb; mulching in after years.

5th.—Bulbs should not be disturbed oftener than once in four or five years.

6th. All flowers cut off as soon as faded to give strength to the others and mulching is good in hot weather and cover the beds with coarse litter for the winter.

Situation.—Partial shade is the best also in open ground, but should be in a well drained spot.

Grown in frames.—Frames should be placed to reach two feet below and one foot above the surface of the ground to keep mice and moles from disturbing the bulbs.

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Dig out two feet and refill with rich sandy loam mixed with a small quantity of old rotten manure and protect for winter. This treatment is for choice varieties.

Time for planting.—Last part of March, April and October is recommended; other seasons are more injurious, this is in regard to our northern latitude.

Keeping bulbs.—If bulbs have to be kept, they should be placed in soil slightly moist, or still better, in pulverized leaf mould but not wet, as it would induce them to grow. A cool dry cellar or pit is the best place; in this way they can be kept all winter in good condition.

Blight.—Some Californian and foreign sorts blight. This I attribute to the full rays of the sun when they are exposed to it. If they are planted at a proper depth and partially shaded, they are not likely to be attacked.

Forcing lilies.—The only species which can be recommended for forcing are candidum and longiflorum and its varieties. The work to be commenced in September by placing strong, healthy bulbs in six inch pots of rich soil. Plunge them and cover with soil or ashes a few inches, to prevent them from drying and freezing. In November or later place them in a sunny situation of the greenhouse and they will grow at once. Water should be given freely, but do not overdose them, syringing every day is very beneficial. Treated in this manner, in a well-kept greenhouse, they are sure to succeed. If grown in a dry or dusty atmosphere little success can be expected. Liquid manure I reject as being not only unnecessary but injurious if used too freely.

I here give the names of the varieties of those which are considered the best.

Auratum, native of Japan has eight varieties known:

Rubro Vittalum, Crunteum, Pictum, Rubro Pictum, Emperor, Virginale, Wittei, Macranthum.

I will here mention what was reported in the Gardeners Chronicle of London, Feb. 10th, 1873.

"A single bulb was obtained early in 1865. It was potted in a seven inch pot and placed in a cool greenhouse where it produced three flowers on one stem. In 1866 it was re-potted in a 9-inch pot and received similar treatment when the plant threw up two stems with seventeen flowers. In 1867 it was re-potted in an 11-inch pot and produced three stems with fifty-three flowers. In 1868, shifted into a 16-inch pot, it threw up twelve stems with altogether 100 flowers. In 1869 re-potted in a 17-inch pot, the result was 39 flowering stems and 193 flowers. The next year, the bulbs were left undisturbed and threw up 43 stems producing 208 flowers.

Another record says: "A plant grown by Mr. Cross, at Melchet Court, was nine feet high and bore 151 flowers all fully expanded."

After *auratum* in alphabetical list come the species.

- Avenaceum* from Kamschatka.
Belladonna.
Batemannia.
Brownii from China.
Bulbiferum from Central Europe.
Callosum from Japan.
Canadense—The most distinct varieties of *Lilium Canadense* are:
 Flavum. *Grave*,
 Rubrum. *Walkerii*.
Candidum or Easter Lily from Southern Europe; a good one for forcing. Its varieties are:
Maculatum Striatum.
Davidi.
Davuricum from Siberia.
Elegans known as *Thunbergianum* from Japan. There are 39 varieties known and they are all beautiful lilies.
Excelsum.
Giganteum from China, stem 6 to 10 feet high, flowers white shaded violet outside 10 to 10 in number, a grand Lily but scarce.
Hansonii from Japan.
Hoveyi, flowers the size of *Auratum*.
Humboldtii from California.
Japonicum Colchesterii, very fragrant, from Japan.
Krameri, very fragrant and closely allied to *Auratum*.
Leichtlinii.
Longiflorum from China and Japan, well known here, of the best for forcing. Its varieties are—*Eximia* or *Wilsonii* with large and longer flowers. *Tekesima* with a purplish tint.
Albo marginate, leaves bordered white.
Madame Von Siebold.
Harrisi, or Easter Lily is the best for forcing.
- Peregrinum*.
Lico Marginiatum.
Flore Pleno and *Speciosum*.
Carneolicum.
Catesboe.
Chalcedonicum a good one from Greece
Columbianum from Oregon. Of this, great quantities are exported.
Concolor.—This one has small bulbs and should not be planted so deep. Both *Concolor* and its varieties are fine lilies.
Cordifolium from Japan.
Croceum from Switzerland.
 Japan, one of the best for out-doors. It has two varieties, *Dalmaticum* *Catini* rich purple, almost black while *Glabrum* is pure white.
Maximowiczi (Japan)
Medeolo des (Japan)
Nepalense (Himalayas)
Pardidum (California) has four varieties —*Packmami*, raised in Boston, U.S.A. from *Auratum* and *Speciosum*.
Parryi
Parrum.
Philadelphicum.
Philippense.
Polyphyllum.
Ponticum.
Pomponium.
Pyrenoicum—a grand species for bedding, 13 varieties of *speciosum* are known.
Superbum—a grand species from eastern States.
Szovitzianum from Persia.
Tenuifolium from Siberia grown there for food.
Tigrinum from Japan, the double variety is a grand Lily.
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It is said of *Harrisi*, that established bulbs will produce 50 flowers on a stem; kept in pots, they bloom twice in the same year.

Lucidum.

Macrophyllum.

Maritimum.

Martagon from Europe, Siberia and

Elegans. About 25 varieties are known.

Wallichianum.

Washingtonianum—*Convallaria*—Lily of the Valley and the *Hemerocallis* or day lily which thrive best in a moist shady situation and are perfectly hardy here.

JULES BETRIX.

THE RAISING AND CULTIVATION OF ANNUAL FLOWERING PLANTS FOR THE GARDEN.

These can be obtained at much less expense and with far less attention and trouble than plants which have to be kept over and propagated from cuttings; and for the amount of bloom, and the bright appearance they give during nearly the whole flower-producing season, they well deserve to have the care bestowed on them which they require to bring them to perfection. Every one with a garden of any pretension has a corner where some of these beautiful annuals could be accommodated, and where they would well repay any attention given to them. This short paper is intended for amateurs in the flower growing line, and I will give a few plain directions of how to make a hotbed for the tender annuals (with a list of those most suitable), the manner in which the seed should be sown and the attention required in the hotbed, the transplanting of such as require it in the hotbed, and their final transplanting to where they are to remain for the season, and flower. The preparation of the soil for this as for any other crop is most important, and with good soil and good cultivation the results will be satisfactory. The hotbed may be of one or more sashes according to the number of plants required, and in any case the preparation of the material 'hot stable manure' is the same. One chief mistake amongst amateur hotbed gardeners is in commencing too soon in the season. The earlier you start the more difficulties you have to contend with; and as the greater number have other vocations during the day to attend to, courting any more difficulties than can be avoided is not to be thought of. The material generally used for hotbed making is stable manure. It should be collected about two weeks before the time for building the hotbed, thrown into a heap and allowed to heat slightly before giving the whole a turn, that is commence at one end or side and carefully mix all the material together by turning the whole pile over on to another part of the ground contiguous. In doing this, all the outside material should be placed in the centre of the pile, thereby making it as uniform as possible. About the beginning of April is quite soon enough to collect the material, and in about two weeks with

frequent turnings will be in a good shape to build the bed. About two ordinary cartloads of the common stable manure usually obtainable will be sufficient for each sash of your bed. With proper turnings this will be reduced to about one common cart load by the time it is required for the bed. It might be as well to mention here that in turning over the material it may be necessary to add water to make it heat properly. There should never be any dry patches (fire-fang) allowed in hotbed material, or in fact in any material required to be used as manure, it is useless afterwards.

The material to form the hotbed being now, say about the middle of April, in first-class condition, turn the whole over on to the place, making it one foot larger each way than the box to be placed on it, shaking and mixing the whole as it is put on. Make it firm with repeated taps with the back of the fork; when finished, the manure should be firm enough to carry a man without his foot sinking more than about three inches into it. This sort of a bed will not blaze up and burn everything that will be sown in it; then ultimately you might trace the cause of all the disappointments to your seedsman, who, honest man, does not know, and should not be blamed when perfectly innocent, for the disappointments sure to follow in trying to grow seeds in a place, nine times out of ten, constructed on improved principles to kill everything of vegetable nature. Very few seeds will stand more than 90° ; and almost all annuals will succeed much better if never subjected to a higher bottom heat than 75° . The soil is another consideration of some importance; not that it requires to be extra good, but light and friable being more suitable. In fact, any good garden soil will answer very well with the addition of sand if of a stiff nature to make it free and open. The quantity has more to do with success than quality, and in no case should less than four inches to six inches be used. The sorts of annuals requiring the greatest heat might be sown on the part where the four inches is used, and plants of a hardier nature such as: Stocks, Asters, &c., sown on the thicker part of the bed. Shading, airing, and watering being about all that is required after sowing until some of the small seedlings may require to have a first transplanting. Many plants are improved by this transplanting, giving them not only more root, but more head space. In fact, it is about impossible to produce good healthy plants of many of the different sorts of both flowers and vegetables without transplanting them. Shading the hotbed before the seedlings appear above the soil is good practice, in as much as plants do not require light to germinate, and it also has the further advantage of retaining the moisture, or at least not allowing the soil to become parched by the sun. Watering should be done only when necessary, and this done efficiently through a fine rosed watering pot as many of the small seed or plants would be washed out if done too roughly. Ventilation is also one of the imperative attentions demanded to secure success in the hotbed. It is better to err on the safe side here; as to neglect giving air for a couple of hours on a sunny forenoon would most likely finish everything. The giving of air less or more, according to the state of the weather must by no means be neglected.

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Coreopsis
Collinsia
Convolvulus
Daturas
Dianthus
Erysimum
Escholtzia
Eutocia
Fenzlia
Gillia

Below is a list of tender and half hardy annuals and plants generally used as such; followed by a list of hardy annuals which are better to be sown where they are to remain and flower. These latter require thinning out only; as the seed is not expensive it is better to sow liberally and thin out. Many of our first favorites belong to the class of hardy annuals.

LIST OF TENDER ANNUALS AND HALF HARDY ANNUALS
TO BE RAISED IN A HOTBED—viz.

Asters in variety	H. H. A.	Calendulas "	H. H. A.
Balsams "	T. A.	Cannas "	T. P.
Carnations, Marguerite	H. H. P.	Nasturtiums, dwarf	H. H. A.
Celosias in variety	T. A.	Nicotiana affinis	H. H. A.
Coxscombs "	T. A.	Pansies in variety	H. H. H.
Dahlias "	T. P.	Petunias	T. A.
Dianthus "	H. H. A.	Phlox Drummondii, in variety	H. H. A.
Gillardias "	H. H. A.	Poppy Iceland	H. H. A.
Globe Amaranth in variety	H. H. A.	Pyrethrum	H. H. A.
Ice plant	T. A.	Ricinus, or Castor oil plant	T. A.
Lobelia in variety	T. P.	Rodanthe in variety	T. A.
Maize variegated	T. A.	Stocks "	H. H. A.
Marigolds in variety	T. A.	Verbenas "	H. H. A.
Mimulus	H. H. A.	Zinnias "	H. H. A.

The above list could be enlarged but that can be left to the taste or the requirements of the grower. Many of the plants mentioned are not annual, but they can be successfully treated as such, and could be ill afforded to be left out, instance pansies.

LIST OF HARDY ANNUALS TO BE SOWN WHERE THEY ARE INTENDED TO BLOOM IN
WELL PREPARED GROUND—viz.

Alyssum in variety	Godetia	in variety
Ammobium alatum	Gypsophilla	"
Anagallis	Jacobias	"
Amaranthus in variety	Larkspurs	"
Asperula	Leptosiphon	"
Calendrina "	Linum	"
Carduus "	Love lies bleeding	"
Catch-fly	Lupins	"
Campanula	Malope	"
Candytuft "	Mignonette	"
Centranthus "	Nemophila	"
Centaurea Cyanus in variety	Nigella	"
Clarkia "	Nemesia	"
Coreopsis "	Oenothera	"
Collinsia "	Oxalis	"
Convolvulus, dwarf "	Poppies	"
Daturas "	Saponaria	"
Dianthus "	Sanvitalia	"
Erysimum "	Silene	"
Escholtzia "	Sweet peas	"
Eutoea "	Sun flowers	
Fenzlia "	Venus looking glass	
Gillia "	Virginian stock	

F. ROY.

PACKING APPLES FOR EXPORT.

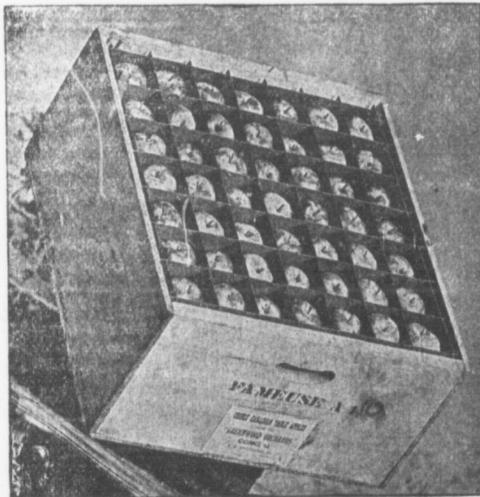
SELECTION OF APPLES; PACKING.

In sending apples to England, the only way in which they can be secured from bruising is to pack them in proper boxes. Most of our Quebec apples are too tender in flesh and skin to stand packing in barrels without bruising.

The Fameuse, Wealthy, Winter St. Lawrence, McIntosh Red, &c., may be classed as late autumn and early winter fruit, and are in perfect order for the table between the 1st November and the middle of December. It is a vital error to pack such apples in barrels, for it is certain that when they arrive in England they will be found to be bruised or crushed.

In barrels, apples will hardly stand even a short journey, unless they be packed very tightly and the tops and bottoms of the barrels be pressed so firmly into the fruit that there be no rattling about; on the other hand, our tender apples cannot be packed in this way without getting crushed, and even the slightest bruise will soon cause rotting.

For the last ten years, I have adopted a patented box that has given me perfect satisfaction: *See engraving.*



PATENTED BOX FOR FRUIT.

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In these boxes we even succeeded in sending Duchess apples in perfect order, last season, to Liverpool and Edinburgh. Autumn St. Lawrence, too, arrived in England in capital condition; but as this variety was not known there and the colour did not please the English, my agent did not return me much encouragement.

The Wealthy, Red McIntosh, and Winter St. Lawrence were highly appreciated. Their deep, rich colour pleased the buyers.

The best way of finding out the state in which the fruit arrives in England is to have agents there to watch the arrival of our apples.

The Wealthy and the Winter St. Lawrence, which I sent to my brother, in England, via London, about the 1st October, not only reached him in perfect order, but on the 7th December, when he wrote to me, were as firm and crisp as need be. This shows clearly the excellence of the compartment-box for packing this kind of fruit.

If the boxes are filled in the orchard, and the fruit carefully handled, it cannot be bruised or injured unless the boxes are flung about or smashed. I must say that, during the last ten years, great improvement is visible in the way boxes are dealt with aboard ship. For more than three years I have had no complaint to make.

The boxes weigh about 65 to 70 lbs. when full. They can easily be carried by putting the fingers into the slits at each end of the box: *see cut*.

Last year, I sent a good many empty boxes of this kind to orchardists in Nova Scotia, who wished to try them for exporting their famous *Gravensteins*. I hear they answered perfectly.

Of course, the apples whose flesh is firm and hard enough to stand the voyage when packed in barrels, cost less to send, and most of these apples will for many years continue to be sent in this way.

The Tasmanian apples, which are sold in great quantities in spring and summer, are sent in long boxes, each apple wrapped in paper; and yet this fruit, that has several thousand more miles to travel than our Canada apples, reaches England in perfect condition.

If we Canadian fruit-growers study the demands of the English market as earnestly as our exporters of butter and cheese have done, we shall soon see that it is absolutely necessary that our fruit should reach England without bruises or any other injuries.

R. W. SHEPPARD, JR.
Montreal.

NOTES ON FRUIT GROWING

BY ALEX. MCD. ALLAN, GODERICH, ONT.

The Officers and Members Montreal Horticultural Society :

LADIES AND GENTLEMEN,—Your good Secretary has requested me to write a few notes for your Annual Report. I had the pleasure last fall of judging the fruit at your exhibition and was impressed with the growing necessity for each section or district throughout the country to be confined by growers for profit to the cultivation of such fruits as they find by experience they can produce as nearly as possible to the highest state of excellence. As growers, we must necessarily go on experimenting, but we already possess a large number of varieties of various fruits that appear to be specially adapted to certain sections, and I believe it will pay us all to confine the growth for market in such cases to these districts. If the character of Canada as a fruit growing county is to be judged by specimens of the Famense apple grown in most parts of Southern and South-western Ontario, our position will be down low among fruit growing countries. But if this judgment is to be formed by reference to specimens from Quebec, and more especially your own district, then we will stand high, both with respect to appearance generally and also flavor. Famense, Wealthy, St. Lawrence, and many more of that class from your section, picked at the proper season, packed as good fruit should be and shipped to Britain, will carry better, keep longer and bring better prices than the same kinds from any part of Southern and Western Ontario, because they are finer in texture, more properly adapted to your climate and soil and higher in flavor. Even Alexander is improved by getting it from your section. I have tested these differences carefully for years, and have observed them in apples arriving in the British ports from all parts of this country. Doubtless you will find variations between different sections of your Province, as we do here. I believe we have not in the past paid sufficient attention to these points. I have often tried to grow a good musk melon, and sometimes fancied I succeeded, but compared to those grown upon Montreal Island, my finest efforts were weak and insipid. Prince Edward County in Eastern Ontario could do better than we in the west, but still many points behind yours. I have often advocated this principle of taking specimens from a large variety of sections where we desired to excel in competition at an exhibition, and the idea can be profitably carried into our apples for market, especially export, where we desire to excel and build up for ourselves a name and high character.

I hope soon to see a law upon the statute books of this Province regulating the grading of all our fruits, so that the grower or packer will be compelled to mark

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every package No. 1, No. 2, or "ungraded," and mark his name and address indelibly upon every package. For any infraction of this law there should be a heavy fine by summary conviction. It would pay every grower to cultivate only such kinds as he can produce to the highest state of excellence, and by following all the necessities of cultivation, manuring, trimming, spraying, etc., he can accomplish this desirable end and practically get his own price for his No. 1 and No. 2 brands; nearly all his fruit will be of these brands, and any balance over will be worth a price to the evaporator or cider mill; the market demand will be greatly increased, and consumers better pleased to pay a good price for a really good, reliable article. But you naturally ask what will No. 1 and No. 2 brands consist of? No. 1 brand should be sound and clean, nearly as possible even in size and color of its kind, and No. 2 also sound and clean, but uneven in both size and color. I know of two such brands that have been more or less upon the British market for over twenty years and today will bring their price, F. O. B. cars, here; the price is and has been for over fifteen years more than double the average of ordinarily good shipments well landed and sold in Britain.

A great many growers seriously argue that there is fear of over-production; they are always looking for new markets, instead of attending to the home requisites of proper selection of kinds to grow and following the proper methods of cultivating for best results. Our home markets are not cultivated to their capacity. By putting upon any of our markets a fine brand we can and will largely increase consumption of fruit, even at an advanced price, and among other good results we will find a healthier population, wherever we increase the consumption of well grown and matured fruits. Britain wants the best of everything to eat and only the best. It costs little more to produce the best of fruits, the expense in gathering, packing and freight is no more, whereas the prices realized are much larger, everybody is satisfied and our good name as a country is preserved. It looks easy, my good friends; it is assuredly the honest thing to do by our customers at home as well as abroad, besides it pays. Why, therefore, is it that we do not follow the course which is in every respect in our own favor as growers? It is hard to answer why, unless it be a desire to save trouble, and yet when we look at the matter from a scientific point, and follow every step required to produce the finest results in the apple orchard, we have not expended as much time and labor there as we do upon an equal area under vegetables or almost any other crop. There must be some result of original sin affecting us upon this question!

It seems to me, in and around Montreal, you have a decided advantage over us here in the fact of being so convenient to cold storage. I think this is one of the important questions of the near future to the fruit-grower. No matter how the general crop of apples is, it will always pay, I think, to put a choice article in cold storage. In short crop years the spring prices will be high, to fancy, and even in large crop years prices will be large enough to pay. Of course, where the crop is large, one would only store the choicest kinds, selecting carefully with a view to some particular trade or market. I have noticed in taking apples from ice storage great care

has to be taken to remove them to a cool room where the fruit will be prepared for market before exposure to heat of any kind. I have known apples shipped from ice storage to be utterly worthless on reaching Liverpool, although when taken out they were choice all through, and not exposed more than any well cared for cargo. I am advocating the building of a large warehouse here for storing apples alone and I believe this will pay in all the large fruit centres. Even in the softer fruits it will pay well, as such can be held at market points for several days, and thus provide against an unnecessary sacrifice on a full market.

I feel we have arrived at a time when we should urge all growers to follow carefully the instructions given for spraying our orchards and gardens. No intelligent fruit grower will neglect this in the face of experience. A united effort means the destruction of the pests, but neglect means an increase in the formidableness of the enemy. Let us be up and doing, and if no other argument will entice all, surely the fact that it pays will. Leave the fungoid to its own will and the codling-moth and curculis, and we will not reap over an average of 5 to 15 per cent. of a choice article in fruits, but by a little effort we can get an average of 55 to 85 per cent. of choicest, besides leaving trees and vines in a better condition for the following season. But with all this we must never neglect to feed and care for our trees, and build them up from year to year to bear well and fight disease, just as we would care for our families. I have found that the best time to use the copper sulphate is as early in the season after the severity of winter passes as possible. In a test as to time the best results followed in every case where the application was made after a few days' mild weather in spring. But this first application can be made any time before the buds open with good effect, after which nothing should be done until after fruit is formed.



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THE CHEMISTRY OF THE STRAWBERRY PLANT.

BY FRANK T. SHUTT, M.A., F.C.S., CHIEF CHEMIST DOMINION EXPERIMENTAL FARM.

In order to ascertain the requirements of the strawberry crop and its effect upon the soil, complete analyses of four varieties of strawberries have been made. The names of these are "Sharpless," "Crescent," "Wilson" and "Manchester," the whole plant, including roots, being examined. The plants were collected while in flower in the month of June, and before the fruit had appeared. They were carefully freed from adhering soil, weighed and analyzed.

Table I. gives in addition to other information, the percentages of water, organic matter and ash (mineral matter), which together make up the composition of the plant.

Analyses of the Strawberry Plant.

NAME OF VARIETY.	Date.	Weight of Plant.	COMPOSITION OF PLANT.		
			Water.	Organic Matter.	Ash.
Sharpless, whole plant in flower...	June 4	3 Ounces.	72.79	25.15	2.06
Crescent, " " ...	"	3½ "	70.25	27.13	2.62
Wilson, " " ...	"	2½ "	72.80	24.89	2.31
Manchester " " ...	"	3½ "	73.43	24.77	1.80
Average of four varieties.....		3 $\frac{14}{100}$ "	72.32	25.49	2.19

Water:—This, as well known, is an essential constituent to the well-being of the plant, its presence in certain proportions being absolutely essential to the plant life and the performance of the functions of food digestion and assimilation. It is the vehicle by which the assimilated food is conveyed to the various tissues and organs of the plant. The importance of a plentiful supply of soil water for the growth of the plants and their abundant fructification cannot be over-estimated, but since Nature must, in ordinary cases, be depended upon for it, there is no occasion to further discuss this constituent. It may, however, be remarked that the tith, cultivation, mulching and the presence of humus (as furnished by an organic manure) have largely to do with the conservation of soil moisture.

Organic Matter: Since all its constituents save nitrogen are procured from the atmosphere it is unnecessary here to consider it. Special remarks of the nitrogen contained in the strawberry plant will be made when considering the elements removed from the soil,

Ash; This represents the mineral matter taken from the soil. Its two most essential constituents are potash and phosphoric acid.

The data in No. 1 call for no special comment, in detail. There is a great similarity in the composition of the four varieties, the variation from the average being small in amount.

The following interesting table gives the percentages of the important constituents in the ash.

TABLE II.
THE STRAWBERRY PLANT—PERCENTAGES OF IMPORTANT CONSTITUENTS IN ASH.

Name of variety.	Phos. Acid.	Potash.	Soda.	Oxide of Iron & Alumina	Lime.	Magnesia.	Silica.
Sharpless (whole plant in flower)	7.63	29.91	1.03	2.47	23.67	6.10	4.02
Crescent, do	5.08	24.28	.78	2.10	29.10	5.19	3.43
Wilson, do	5.80	24.31	1.26	2.47	27.82	6.11	4.60
Manchester, do	5.88	26.93	1.09	2.04	24.75	7.13	5.89
Average.....	6.09	26.36	1.04	2.24	26.33	6.13	4.49

It is here again noticeable that no great differences exist between the plants analyzed. Such as occur, might be accounted for by slight variations in the composition in the soil in which they grew.

The ash of the strawberry plant contains about 6 per cent. of phosphoric acid and in the neighborhood of 25 per cent. (one fourth its weight) of potash.

Of the less important constituents, lime takes the precedence, being equal in amount to the potash found.

The comparatively large proportion of silica and of oxide of iron and alumina in the ash are interesting from a scientific standpoint, but need not be considered here as they are elements supplied in abundance by every soil.

The next table gives the number of pounds of the three essential elements of fertility, derived from the soil and contained in the strawberry plant, per 1,000 pounds of green plants and per acre, estimating the number of plants at 10,000.

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TABLE III.

THE STRAWBERRY PLANT—WEIGHT OF IMPORTANT FERTILIZING CONSTITUENTS WITHDRAWN FROM THE SOIL.

Name of variety.	Nitrogen.		Phosphoric Acid		Potash.	
	Lbs. per 1,000 plants.	Lbs. per acre at 50,000 plants	Lbs. per 1,000 plants.	Lbs. per acre at 50,000 plants.	Lbs. per 1,000 plants.	Lbs. per acre at 50,000 plants.
Sharpless (whole plant in flower).....	4.79	44.9	1.63	15.3	6.16	57.7
Crescent, do	4.59	42.5	1.33	12.5	6.36	59.6
Wilson, do	5.45	51.0	1.34	12.6	5.61	52.6
Manchester do	5.51	51.5	1.26	11.8	4.85	45.5
Average	5.07	47.5	1.39	13.0	5.75	53.9

Of these essential elements it is here made clear that the chief demand for the development of the plant is upon the available potash and nitrogen in the soil. The phosphoric acid stands third, the ratio of potash to phosphoric acid from our analysis being 4 to 1.

Since the plants are finally ploughed under, thus returning the substances formerly abstracted and assimilated from the soil, the only real loss theoretically of plant food is that contained in the fruit. The quantity of fruit obtained per acre varies widely from 75 bushels to 300 bushels, a good average yield weighing probably 10,000 pounds. From the report for 1892 of Dr. Goesmann, Director of the State Experiment Station, Amherst, Mass., U. S. A., the following averages were obtained: Ash in fruit, .52 per cent.; potash in ash of fruit, 53.81 per cent.; phosphoric acid in ash of fruit, 17.9 per cent. Estimating the weight of fruit at 10,000 pounds, we find that 52 pounds of mineral matter, containing 28 pounds of potash and 9 pounds of phosphoric acid, are removed per acre. The ratio here of phosphoric acid to potash is 3 to 1. Unfortunately, the amount of nitrogen was not ascertained.

The loss of plant food that the soil sustains through the gathering of the fruit, is not, compared with other crops, an excessive one. At the same time it is to be remembered that the soil has to provide in addition to those required by the fruit, the fertilizing constituents as given in table III, though, as already pointed out, the greater part of the latter will eventually return to the soil.

A soil to be well manured must contain a large excess of available plant food over and above the amount that can be utilized by the crop, since it cannot be supposed that the roots will be able to absorb, by virtue of their disposition in the soil, more than a comparatively small proportion of such fertilizing ingredients.

The strawberry is usually considered an "exhausting crop"; as far as the real loss of plant food through gathering the fruit is concerned, the facts scarcely bear out this opinion. To replace or restore to the soil substances so removed by the fruit would not in itself require a very heavy application of manure. It is found, however, as a matter of practical experience that to make strawberry culture successful the soil must be fed very liberally. High manuring for strawberries is a common practice. We may advance several reasons why such is necessary and why this practice does not conflict with what has already been said and shown here.

The growing, and more especially the fruiting, seasons are short. During a comparatively brief period there is a large demand for immediately available forms of nitrogen, phosphoric acid and potash (and especially the first and last of these) a demand that must be met if the best results are to be obtained. Even the richest soils contain only small amounts of such plant food, and hence the necessity for the presence in the soil of a large quantity of manure that will readily yield its fertilizing ingredients. This more particularly is found to be the case when the rainfall is below the average, during the fruiting season.

Barnyard manure is the fertilizer commonly used. This besides furnishing nitrogen, phosphoric acid and potash, acts beneficially in improving the tilth, in supplying humus, in the conservation of soil moisture and equalizing the soil temperature. To supply potash by means of barnyard manure alone, excess over and above that required for nitrogen and phosphoric acid must be applied, since owing to faulty methods of preservation this manure is often applied when partially leached out. This consideration would suggest that for the rational manuring of this crop, potash in some form (wood ashes, kainit or muriate of potash) should be used in conjunction with barnyard manure. Wood ashes are for many reasons to be preferred; they contain phosphoric acid in excellent proportions for such a fertilizer.

The amount and kind of fertilizer required depends very largely upon the season and the character of the soil. If a drought occurs during the fruiting period a large excess of barnyard manure in the soil will prove most effective in retaining the soil moisture; on the other hand, a similar excess if the season is rainy and hot, will tend to the production of foliage and runners to the detriment of the fruit crop. If a soil has been devoted to strawberry culture for some years and barnyard manure has been exclusively used as a fertilizer, the probabilities are that phosphoric acid and potash are the fertilizing constituents particularly needed. These may be applied as wood ashes, or a mixture of finally ground bone and kainit or muriate of potash, as already mentioned. Instead of the bone meal, superphosphate may be used; it furnishes the phosphoric acid in a more or less soluble condition, but unlike bone meal does not contain nitrogen. Light dressings in the spring of soluble nitrogen, as in nitrate of soda (say 100 pounds to the acre) are frequently of great value, especially on poor soils.

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MONTREAL, December 1st, 1894.

To Honorable LOUIS BEAUBIEN,

Commissioner of Agriculture, etc.,

Quebec.

SIR,—

I received instructions in your communication of the 9th June last "to visit Ontario and the State of New York in order to gather information on fruit culture, the fruit desiccating industry, and the best means of preserving and utilizing fruits; to make a report of my observations, and include suggestions deemed proper to promote fruit culture in our province." These instructions were very general, but, after a great deal of consideration, I concluded to devote my attention more especially to the fruit preserving, fruit desiccating industry.

Canning factories for preserving fruit, etc., are established at different points in Ontario on a line between Windsor in the West to Kingston in the East. There does not appear to be any factory of importance much further north than the latitude of Toronto, and the greater number are situated at points west and southwest of that city in the great fruit-growing districts between Lake Ontario and the northern shore of Lake Erie. The following is a list of the principal canning factories of Ontario:—Aylmer Canning Co., W. J. Badder, St. Catherine; Delhi Canning Company, Erie Preserving Company, Flynn Bros., St. Catherine; Lakeport Preserving Company, Kingsville Preserving Company, Niagara District Fruit Preserving Company, Phoenix Canning Company, Simcoe Canning Company, Strathroy Canning Company, West Lorne Canning and Evaporating Company, W. Boulter & Sons, Picton; Belleville Canning Company, A. C. Miller & Co., Picton; Miller & Co., Trenton. The largest factories are those in the Lake Erie district, where a great variety of fruit is cultivated, such as pears, peaches, apricots, quinces, etc., which the factories east of Toronto do not appear to preserve to any extent, because such fruit cannot be cultivated profitably or successfully in their vicinity. Therefore, as the group of Eastern Ontario factories at Picton, Trenton and Belleville are situated nearer to our own province, where the climate is much similar to that of the District of Montreal, it appeared to me that more desirable information could be gathered on the subject mentioned in your letter, by visiting them, than those in Western Ontario. In this connection, therefore, about the end of July, I visited the town of Picton, Prince Edward county, Ontario W. Messrs. Boulter & Sons, who are proprietors there of the principal canning factories, willingly gave me every opportunity to see their factory in operation. Messrs. Boulter do not now evaporate fruit, but devote their attention to the canning of fruits and vegetables, viz.: apples (quartered), pears

(quartered), strawberries, raspberries, plums, blueberries (huckleberries) gooseberries, currants, tomatoes, corn, peas, beans (in the pod), pumpkins, etc., etc. When I paid my visit to their factory they were busy canning raspberries—the Cuthbert and Shaffer, mixed; the latter variety was added, they said, to give the preserved fruit a darker color and more of the flavor and appearance of the wild raspberry. I can testify to the excellent system of preserving, using fifty pounds granulated sugar to one hundred pounds of fruit. A pailful of berries was first put into a copper kettle, then half the weight of sugar, and so on, until the kettle was full; then the steam was turned on, not to cook the fruit, but only to dissolve the sugar. The fruit was then put into cans, sealed, and afterwards the cans were boiled in water for about five minutes. This was all the cooking required, that the fruit might retain as much of its natural flavor as possible. At first, Messrs. Boulter canned both wild strawberries and raspberries, but owing to the difficulty of procuring sufficient quantity of them in the vicinity, they have had to make large plantations of the cultivated kinds. Last season they had on their own place over eight acres of raspberries under cultivation. The Boulters formerly evaporated apples largely, but now they can them all, and there seems to be a large and growing demand for canned apples, which are quartered and cored, and then cooked in their own juice in the can. The crop of apples from Mr. Boulter's orchard of two thousand trees is disposed of in this way. The Duchess apple is, I believe, a favorite for canning; the Fameuse is not used, being considered too soft.

Mr. Archibald Miller, M.P., of the firm of Miller & McAuley, Picton, and Miller & Co., Trenton, is the largest evaporator of apples in Prince Edward county. Only fall or winter apples are used for evaporating. I believe summer apples are not used, partly because there are so many other fruits and vegetables ready for preserving in August, and because they do not evaporate so profitably as the later varieties. The Fameuse is not considered a profitable variety for evaporating, but any good sour apple, even seedlings or unbruised windfalls that are fully matured and that do not measure less than two to two and a half inches in diameter, are considered satisfactory. The prices paid for apples for evaporating range from fifteen to thirty cents per bushel. The hard and firm varieties make more product than the soft kinds. The former make $5\frac{1}{2}$ to $6\frac{1}{2}$ pounds of evaporated fruit to the bushel, whereas the soft kinds only yield 4 to 5 pounds per bushel. The apples are pared and sliced by machinery, great care being taken to extract all the core. The fruit is then run through the bleacher (an oven burning brimstone) until it is white, and then passed into evaporators. Considerable attention must be paid to prevent the fruit being burnt or colored by too much heat. A small evaporating plant costs about six hundred dollars (\$600), exclusive of building; such a plant will evaporate seventy-five (75) bushels per day, making about four hundred and fifty (450) pounds of fruit. About fifteen hands would be required, twelve of them girls. Such a plant works by hot air.

Evaporating by steam takes more money. The plant would cost two thousand five hundred dollars (\$2,500), exclusive of building. Many farmers in Prince

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Edward county run small evaporators successfully, and dispose of their product to large dealers like Messrs. Miller & McAuley. It is in the bleaching of the fruit where skilled labor is required.

GENERAL REMARKS.

The proprietors of the Canning and Evaporating factories in Prince Edward county are first of all agriculturists. They were farmers before they began to establish canning factories. As a rule they keep large herds of cattle, and, besides growing large quantities of fruit and vegetables, they contract with farmers to cultivate considerable areas of sweet corn, peas, tomatoes and fruits for their factories. It appears to me that one of the most lucrative products of the farm, and at the same time the most beneficial, is sweet corn. The canning of corn is an immense industry. One factory alone will contract for the crop of several hundred acres. The proprietor of the factory being, as said, a farmer, knows the value of ensilage; therefore, instead of throwing the refuse cobs and husks on the manure pile, he carefully packs them into siloes, as they come fresh from the factory. He is thus able to fatten, in connection with his canning industry, a large number of cattle every winter, principally on his cob and husk ensilage. The farmers also with whom he has made contracts obtain paying prices for the corn (about \$25 per acre), at the same time having the cornstalks for making ensilage, and therefore they can fatten a greater number of cattle than would be the case if there was no ready and convenient market for the corn. There is no doubt but canning factories in these districts are mutually advantageous both to the farmer and to the proprietors of the factories. From information I have been able to gather, I conclude that the canning of fruit is much more profitable when joined to the canning of vegetables, as the factory is thus able to begin with early fruits, going straight ahead to the end of the season with vegetables and fruit as they mature in succession. I am sure that the establishment of similar factories in certain districts in this province, where fruit and vegetables may be grown cheaply, and a point where the goods may be cheaply and conveniently shipped to distant markets, would be of immense advantage to the farmers of those particular districts. We are certainly able to grow nearly if not all the fruits and all the vegetables which are grown in Prince Edward county, as well, and, I believe, more cheaply too. It is probable, also, there are some remote spots in the province where the canning of small fruits might be made profitable. The canners admit that wild raspberries are more appreciated when canned than the garden or cultivated varieties. We have districts to the north and northeast where these wild fruits abound, the preserving of which could be made a profitable industry. There are also certain districts where seedling apple orchards are numerous, whose products it is difficult to dispose of to advantage, which could be made profitable if small evaporating works were established. At the same time we must bear in mind that in this province of Quebec the fruit-growers have not yet, to any extent at least, been obliged to dispose of their apples (even culls) at twenty to twenty-five cents per bushel, because we do not begin to grow sufficient fruits for our own consumption. On the contrary, our

friends the fruit-growers of Ontario send us many more bushels of apples than we produce, and they find our city market perhaps the best in the Dominion. The evaporating factories consider twenty-five cents per bushel for apples a maximum price, and that for large-sized apples from two to two and a half inches in diameter, a price that growers here consider altogether too low, because they are accustomed to dispose of such fruit at better prices. Therefore, I think the time has scarcely arrived to recommend the establishing of evaporating factories throughout the fruit-growing districts of the province. But canning factories for fruit and vegetables could be worked in one or two districts to the great profit and advantage of both farmers and fruit-growers.

I was surprised to learn of the immense importance the canning industry of Ontario has reached. The canning factories have got (like most other large industries of the country) their combine to regulate prices. Many of the large factories export their goods to Europe, as well as to the Pacific coast, and trial shipments have been made to Australia. The North-West Territories and Manitoba are large consumers of Ontario canned goods, and great strides have recently been made in introducing canned corn and tomatoes into Great Britain. In fact it seems to be a growing and important trade, and although the proprietors of canning factories assert (like other manufacturers) there is no money in it, I was able to gather the information that one large and important factory at least, for canning fruit, was established at Toronto this season.

We have not, I believe, in the province of Quebec a Bureau of Industries giving reports of agricultural statistics, such as they have in Ontario, showing the value of the product of the farm from year to year, and the acreages and yields of different farm crops, information which is of immense advantage to the agriculturists of that province. Without the aid of such a bureau we cannot estimate the extent of areas under cultivation of such crops of fruits and vegetables as are suitable for canning. The report of agricultural statistics of Ontario for 1893 gives the area in orchard and garden for the province as 199,060 acres, which shows what an enormous quantity of fruit is grown there, and how valuable such an asset is for Ontario farmers. The increase of orchard area since 1889 was 16,294 acres, while grain crops, such as wheat, barley, rye, peas, have decreased in area, showing clearly that the cultivation of fruit is still considered a paying industry in Ontario.

No doubt the areas of orchards in this province have increased very considerably the last decade, but without such a bureau or official information, it is impossible to estimate the rate of increase. Our fruit-growers have until recently, in fact, very recently, imagined that they cannot grow hardy or winter apples. We have too many summer and fall varieties under cultivation, and too many unprofitable varieties. The Fameuse, which until a few years ago was our most profitable variety, is becoming unprofitable owing to the fungus disease. The Provincial Pomological Society is doing a good work in bringing before the notice of fruit-growers the advantage of spraying to overcome the fungus, but it will be years before spraying the trees will become general, and in the meantime the growers of Fameuse here are getting discouraged. It seems to me that fruit-growers who contemplate planting out new

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orchards should set out varieties which are not liable to spotting, and which are hard and firm enough to be exported, or that may be used for canning or desiccating, so that they may always be sure of a fair return for their product. Many of the new Russian varieties of apples are admirable for desiccating or canning. But it is within the province of the Provincial Pomological Society to recommend and instruct those who contemplate planting orchards as to what varieties to plant, and that Society has here a field for disseminating a great deal of useful information.

It is not generally known that Mr. J. W. Windsor, the owner of several flourishing lobster and fish canneries in New Brunswick and in Gaspé county, Quebec, has been established in Montreal canning vegetables in summer for about fifteen years. Mr. Windsor says :—

“ Our first pack of tomatoes only amounted to 1700 cases (two dozen each), which was done in a primitive way. We were groping our way in the dark. Since that our business has grown steadily, and we have adopted the most modern machinery as it came on the market. Up to the year 1889 we had but one factory in Montreal. We found our business increasing, and we erected a fine building at St. Eustache, Quebec, and equipped it with the most modern machinery. Our output that year was about 30,000 cases of vegetables and fruit. Since that time we have not increased in canned vegetables, but have added many other lines to our business.”

Mr. Windsor complains of the keen competition from Ontario, but he also is a member of the Cannery Combine. He goes on to say :—

“ Western farmers have studied the requirements of the market, and grow nice red stock, while but we have a number of good farmers here who do grow as good tomatoes as they do in the West, and I believe as good as anywhere; yet there are quite a few who have to be educated to a more careful study of the cultivation of these vegetables.”

Mr. Windsor says that notwithstanding keen competition and lower prices for the manufactured article, he pays the farmer twenty-five cents per bushel, the same price that was paid several years ago, when prices for the canned goods were much higher. No doubt he is able to do this because of the improvement in the system of canning, owing to the introduction of more perfect machinery. Mr. Windsor lately imported from Germany a machine that fastens the covers of the cans without solder, by a system of double joints, which works admirably, and which so far, I believe, has not yet been introduced into the Ontario factories. The waste corn cobs and husks at Mr. Windsor's factory, St. Eustache, are not utilized for ensilage, but are thrown on the manure heaps. This is because Mr. Windsor is a canner or manufacturer, and not a farmer; but it seems that a large amount of valuable material for making ensilage is allowed to go to waste which the farmers in the vicinity of St. Eustache factory might utilize for feeding purposes.

Mr. Windsor recently began to manufacture Tomato Catsup. He says :—

“ We can produce as fine a quality as any of the United States, at a very much less cost. Our output of this class of goods this year (1894) will not be less than

"5,000 cases. Formerly this business was supplied from the United States and Ontario factories. Our output of gallon apples has been 1,500 cases; also plums, peaches, pears, tomato soup and sauces."

Mr. Windsor admits that he has to bring almost all his fruit from Ontario, and that by far the larger portion of the apples canned here (viz. 1,500 cases) was brought from Ontario, which goes to prove my former assertion that we do not grow enough apples, or of the proper kinds for canning factories. Small, spotted fruit, of which we have a large quantity, not being suitable for canning or evaporating purposes, might be utilized for making cider. Mr. Windsor concludes his communication to me thus:—

"We think we should be encouraged in every possible way by the Government, as well as by the co-operation of farmers."

Owing to numerous business engagements cropping up during the months of August and September—the two months when the business of preserving of fruits is most actively prosecuted,—I was unable to visit the State of New York, as I fully intended doing, but I am much indebted to Professor Craig, of the Ottawa Experimental Farm, for giving me the names of several firms in that state who are interested in the drying and evaporating of fruit, particularly the desiccating of small fruits, which is an industry that does not appear to be yet established in Ontario.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

R. W. SHEPHERD, JR.

FRUITS FOR THE NORTH.

BY J. C. CHAPAIS, ST. DENIS.

In the Fifteenth Annual Report of the Montreal Horticultural Society I presented a few notes on an orchard I had planted at St. Denis, Kamouraska County, Province of Quebec, latitude 47° 30', in the year 1889.

As it may prove interesting to fruit-growers belonging to cold districts to know what measure of success I have met with, I append a list of apple, plum and cherry trees which have borne fruit:—

Apple.—Alexander, Antonovka, Arabka (Summer), Arabka (Winter), Babustikino, Charlottenthaler, Duchess, Fameuse, Golden Russett (English), Hyslop, Longfield, Louis Favorite, McIntosh Red, R 1 Astrachan, St. Lawrence, Titovka, Transcendant, Wealthy, Whitney.

Plum.—Coes' Golden Drop, Damson, Lombard, Reine Claude, Shropshire Damson, Smith Orleans, Trabishe.

Cherry.—Bessarabian, Early Richmond, Montmorency, Vladimir.

All the trees above named thrive very well, make a steady and healthy growth, and seem to be at home in our cold district. I hope the mention of this list of fruits will encourage fruit-growing in the eastern part of the Province of Quebec and in other cold sections of the Dominion.

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FRUIT GROWERS' UNIONS.

BY PROF. J. L. BUDD, AMES.

"In union there is strength," applies specially to fruit growing. In Europe we find sections where the growing and drying of prunes is a leading pursuit. In all cases such interests are made common by the union of individual growers with business rules and regulations, and special agents to secure best rates of shipping and the best markets for making sales. The same union of individual interests is found necessary to grape growing, wine making, perry making, nursery stock growing, etc., as the private grower for obvious reasons cannot compete with these methodic combinations of interests. In fruit growing centres of the United States we find these unions quite as essential. In California fruit-growing was not profitable until unions were formed leading to the combined production in neighborhoods of the varieties best suited to the soils and markets, and the appointment of competent agents empowered to make contracts for transportation, and to search for the best markets and systems of marketing.

The same has been true of the grape growing of western New York and Ohio. Prior to organization the grape grew as well, or even better, than now. But the individual growers lacked cold storage, and failed to secure special rates of transportation; hence they usually glutted local markets instead of reaching out to markets less perfectly supplied. With the establishment of fruit unions the acreage at once increased a hundred fold, and with increased facilities for handling, the markets extended westward to the prairie states and northward to Manitoba.

At South Pass, Illinois, the small fruit interests grew slowly and the profits were trifling, while every grower tried to row his own boat. But with the formation of a fruit growers' union refrigerator cars were put on the road, the best commission men were secured in Chicago and other northern cities, and the planting increased a hundred fold in two years, with a nearly corresponding increase in profits.

In Iowa the fruit growers' union of Mills county has resulted in the same way in increasing the acreage of orchard fruits, systematizing the packing, and securing the best prices in the best markets.

The small fruit growers' union of Council Bluffs is young, but its influence is already felt in the way of increased plantings and more distant shipments, which prevent a glut of local markets.

But as yet but little has been done in our state in the way of united work in growing or selling fruits. The point we wish to make at this time is that every neighborhood in southeast Iowa can profitably organize and unite in growing some horticultural crop for which their soil is best suited. As instances: If cherries do well decide on the best varieties, encourage their general planting, and organize on

the Mills county principle to secure the best system of packing, the best shipping rates, and the best markets. If plums do well, make plums a specialty and grow enough to attract the attention of buyers, and make it an object to combine individual interests.

So with the other orchard fruits, the small fruits, and even the nut trees, as many neighborhoods can be found where the chestnut, shell-back hickory, pecan, and other nuts can be grown in great quantity with profit. But the great underlying thought in all cases is this: The neighborhood that grows a little surplus of about every orchard and small fruit that will thrive fairly well, does not attract the attention of buyers and only has a local market to rely on. But the neighborhood that has a large surplus of any good fruit, or nut, is sure to find a market at remunerative prices. To illustrate: At the last meeting of the State Society, a member asked W. C. Haviland, of Fort Dodge, "What will you do with your 140 acres of Oldenburg orchard?" His answer was: "A single dealer in Minneapolis has contracted the whole crop to put into cold storage." Again: A New York fruit firm has this season sent a force of Sicilian packers to Jamaica to pack oranges, and has also sent material for making the regulation boxes and lining them. Why is this done? The fact is known that Jamaica has a crop of fine oranges, but they lack knowledge as to the proper method of packing for distant shipment.

These cases are given to illustrate three points: (1) The neighborhood that has in quantity any desirable horticultural product will be benefited by the competition among buyers. (2) If such a neighborhood has a large stock of any desirable fruit or nut, the buyers are ready to instruct in methodic handling and packing. (3) Except in rare cases, such as that of Mr. Haviland with his Oldenburg orchard, or that of Hon. Silas Wilson, of Atlantic, in growing grape vines, the extended growth of a single product in one vicinity is scarcely possible except by working up a common interest.

In this connection I wish to draw attention to some of the possible benefits of modern cold storage in orchard and small fruit neighborhoods. Hundreds of Iowa people were surprised at the firmness, juiciness, and perfect flavor of such fine fall apples as Wealthy, Fameuse, Alexander, Wolf River, Red Aport, Lubsk Queen, Bergamot, Kiev Reinette, and Aport Orient in June and July, after keeping in cold storage over winter. They were equally surprised at the perfect condition of early winter sorts, such as Jonathan, Grimes, Golden, Zuzoff, Winter, Winter Aport, and many others. Both the fall and early winter varieties held up about as well on light and hot exhibition tables as the tough late winter sorts also kept in cold storage.

This experience, joined with the fact that thousands of bushels of the Oldenburg are now used in Chicago, Milwaukee, and even St. Louis, as dessert apples in midwinter, indicate an important change in our commercial fruit growing in the near future. It is a well-known fact that summer and fall varieties of the apple are more fruitful and longer-lived than varieties that mature late in the season, for the reason, perhaps, that they can be picked earlier, thus giving the trees time to store

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needed starch in the cell structure for enduring the rigors of our winters. Aside from this, it is now an acknowledged fact that the tender fall apples, properly kept for winter and spring use, find a readier market at advanced prices than such tough sorts as Willow, Ben Davis, Stark and Missouri Pippin.

PRESERVATION OF FALL APPLES.

BY PROF. J. L. BUDD, AMES.

Last year the writer gave a paper on the commercial preservation of apples in cold storage, including notes on the preservation by drying and canning. As this is found in our annual report of 1893, at this time I will note a few beautiful and good fall apples, which have proven hardy and fruitful in the northwest, that can safely be grown in large quantity and stored for the winter and spring trade.

I will only premise some well established facts :

1. Handsome, tender and good fall apples sell better in any market than the tough-fleshed winter apples that keep in common cellars merely for the reason that their flesh is firm and tough, such as Willow, Ben Davis, Stark and Missouri Pippin. Such tender sorts as Jonathan and Grimes Golden are not included in the winter list as where they can be profitably grown in the west they are fall apples to even a greater extent than some of those named below when grown on the forty-third parallel.

2. The northern fall apples kept in cold storage preserve their flavor and do not decay quickly when brought out for sale in winter or spring. At the Columbian Exposition nothing excited so much surprise as the perfect flavor and the long period of holding up of such varieties as are named below. This has also been demonstrated during the extended use of the wealthy and Oldenburg in Chicago, Milwaukee, and even in St. Louis in winter and spring. They come out of cold storage and hold up with unimpaired flavor on the stands of the apple retailer as well as the winter apples from the cellars, and have far quicker sale.

3. Such fall apples as we name should be picked as soon as the seeds are brown in the fall and should be barrelled and put into cold storage at home or in market before their coloring is nearly complete, as experience has shown that all these northern sorts will color up perfectly in the barrel.

With these preliminaries we will append a few notes on profitable varieties for culture on a large scale on any suitable orchard soils in the northwest district, only naming some of those which have been perfectly tested :

Wealthy.—To secure longevity of trees this should be top-worked on Hibernial or Oldenburg. It has proven specially profitable for winter and spring sales.

Zuzoff Winter.—This also should be top-worked. As grown in Wisconsin it is not true to name. It has proven an early and regular bearer, and we have never known it cut off by spring frosts as it blooms as late as Rawle's Genet. The fruit

has the size and beauty of Northern Spy, and it is about as good in quality. For mid-winter use in north Iowa it is not necessary to put it in cold storage. But for late winter and spring no variety will prove more profitable.

Winter Oldenburg.—The variety referred to is No. 544 of the Department list. It is known in Wisconsin as Juicy Burr, but this name was rejected by the American Pomological Society, as the Russian name, *Lapouchoe Nativ*, does not mean Juicy Burr. The suggested name is "Lapouchoe," but it will be best to select the name given above, "Winter Oldenburg," by which it is known in Canada. It is clearly a member of the Oldenburg family in tree and fruit. But the fruit averages larger and it keeps longer than Wealthy, and is about equal to it in quality.

Painted Pippin (No. 361).—This is a true iron-clad and a very perfect tree. It is also an early and full bearer of large and conical fruit with crimson stripes and splashes and much bloom. The flesh is fine grained, sub-acid, and very good in quality. Season of Wealthy.

Bergamot (No. 424).—This is a bright yellow apple of the Antonovka family, averaging as large as yellow Bellflower. Its season is that of Wealthy, and in Autumn it is decidedly acid like Oldenburg. But when it comes out of cold storage in late winter or spring it is just right for dessert use.

Ledenets (30 M).—Another large yellow apple with blush on the sunny side. Its season at the north is mid-winter, but in storage it keeps with perfect flavor until June.

Gipsy Girl (56 Ver.)—This is a fine tree and an early bearer. Fruit large, smooth and remarkably handsome. It comes out of cold storage in late winter a perfect model of beauty in form and color, and it is as good as it looks.

Lubsk Queen (No. 444).—Another gorgeously beautiful variety of large size and fine quality when it comes out of cold storage in spring. This variety grown in Wisconsin has sold in Chicago for six dollars per barrel to put in cold storage. In the spring they have sold at five cents each.

We have not included in this list Boiken, Regel, Voronesh Rosy, Cross (15 M), Shlanka and others, as they are too late in season to come under the present heading.

Those who looked over the large collection of beautiful Russian apples at the Columbian exhibit, or at our state fairs in Iowa, Minnesota and Wisconsin will say we have left out some of the very best. But the purpose has been to include only some of the early and regular bearers and those that have been tested for a series of years on varied soils. It is not intended as an unchangeable list, the only purpose being to impress the belief that it is now safe to plant many commercial orchards in a neighborhood with a view to combination in putting up a modern storage house, or if this is not thought best, to combine for the most profitable shipment. No fact is better established than the one that a large quantity of good apples finds a better market than a wagon load. As an instance, we are told that one firm in Minneapolis has contracted for the entire crop of the Oldenburg apples from Mr. W. C. Haviland's 160-acre orchard at Fort Dodge, to put in cold storage. If Mr. Haviland only had a few trees of the Oldenburg he could hardly find a home market, and it would not pay to ship a small quantity.

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I will only add that a cold storage holding 5,000 bushels of apples in barrels or one-bushel crates by the modern brine circulating system, is not as expensive as is usually believed. In hot-water heating of a room or rooms the water circulates on account of the unequal heat at the water-heater and in the return pipes. In the cold storage fruit-room or rooms the air is cooled by very cold brine circulating in pipes overhead or on the walls. But in this case the brine is so nearly equal in temperature in the flow and return-pipes that the circulation must be kept up by a force-pump. The brine vat—from which the brine flows and returns—is kept very cold by coils filled with ammonia. The expansion of the ammonia robs the brine of heat and the process of storing cold goes on continuously, but is subject to control with the changes of the weather. In its management it is as simple as hot-water heating, excepting the management of the pump and the ammonia evaporator and engine. In an apple house the critical period is the fall and spring, hence during a large part of the year the engine could be used for other purposes, such as grinding, water-raising, etc. Though developed in the past ten years in its present perfection we now have several manufacturing firms who manufacture machines for ice-making and all kinds of commercial refrigeration on land and water. The neighborhood in north Iowa that has 200 acres of orchard can richly afford to put in a modern cold storage plant.

CLIMATOLOGY IN ITS RELATIONS TO HORTICULTURE.

BY PROF. J. L. BUDD, AMES.

The topic assigned the writer has been discussed in previous volumes of our State report. Hence at this time some of the lessons of the drouth of 1893 and 1894 will be briefly considered. As a preliminary the question comes in: "*Will such periods of extreme aridity of soil and air be likely to recur?*"

During the first years of prairie occupation we experienced protracted periods of drouth. As an instance, in 1846 not a drop of rain fell in the Cedar River section from April to November. Of this period Chas. W. Irish, present Chief of the Irrigation Inquiry at Washington, says: "I am satisfied that a drouth like that of 1846, coming upon our state in its present condition, would render a great portion of it totally uninhabitable." Yet he says that in 1846: "The rank prairie grasses seemed not to feel the drouth at all. They did not die, neither did they wilt. Even the field crops did well and the farmers harvested a full crop of wheat and corn. Indeed, all farm productions were of first quality and full quantity." The change in effects on crops he attributes to extended cultivation and consequent destruction of the natural earth covering. In other words, as expressed by experts who have studied such problems in the old portions of Europe and Asia, our summer climate makes the effects of periods of drouth more pronounceable on account of the increased evaporation growing out of the increased heat and aridity of the air. At times the past summer we had only nine per cent. of moisture in the air with a temperature of 100 degrees and

a rapidly moving air. That no such condition of air was known in the early days will be generally admitted. As expressed by Arthur Bryant in the preliminary pages of his valuable work on "Forest Trees." "A period of drouth at the present day works far greater injury to crops than did a more protracted one in the early settlement of the country. These evils appear to be cumulative—to increase with the lapse of years. They may be mitigated, perhaps wholly removed, by planting a due proportion of the country with forest trees."

Without discussion we may safely assume that the recurrence of such periods of aridity as that of the growing season of 1894 will be more frequent than in the past, and cumulative in their effects as the years go on, unless we imitate the nations of continental Europe in the way of methodic timber planting over large areas, and in the preservation and construction of lakes, ponds and reservoirs.

Cultivation and Soil Shading.—Admitting the truth of the above conclusions, the need of orchard cultivation is as apparent as in California. A dust mulch, resulting from frequent stirring to a depth not exceeding four inches, lessens evaporation and favors the ascent of moisture from lower levels. During the past season we stirred the dust mulch with the Planet Junior cultivator about once a week and continued it until the 20th of July in all our nursery rows. The effect has been that moist earth was found at all times under the dust, and the growth has never been more perfect and the foliage is bright and without show of injury from insects or fungus. The same effects has been observed in bearing orchards and small fruit plantations where the culture has been as continued and perfect as is practiced in the orchards of south California where culture has been found cheaper than water at so much per inch.

We grow orchards for the fruit they produce, hence if we admit that the crops will be more regular and the fruit larger and better as a result of thorough culture we have only to decide this question: "Will the same culture given in well-managed vineyards pay in orchard management?" This can soon be determined by practice. The verdict in Colorado, Utah and California, where transportation is very expensive, has been that it is imperatively needed and that it does pay. In young orchards, even when bearing their first crops, the cost of culture can be lessened by sowing buckwheat about the middle of June. This shades the soil, lowers the temperature of the lower beds of air in the rows, and appears to favor the ascent of moisture from below about as well as the mellow surface or the dust mulch in very dry seasons.

Methods of Planting.—Experience in all dry interior regions is favoring the planting of orchard fruits and nut trees closely in rows running north and south and giving wide spaces between the rows for north and south air circulation. In other words, we have matted rows with wide spaces for side development after the tops meet, as well as for air circulation. In the dry climate of east Europe the spaces between the north and south matted rows are often six rods in width and these spaces are kept shaded during the growing season by crops of buckwheat, sugar beets, flat-podded pea, or Bokara clover. Where the latter is used it is cut

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three times each season for feed, as it is only valuable when in its soft succulent stage. The matted rows give forest conditions to the main stems and branches, and the wide, dense shade permits the nitrogen-feeding roots to come up near the surface where the supply is more abundant. With needed fertilizing most likely this wide-row system will permit shading the soil with profitable growing crops in place of the more expensive cultivation referred to.

Will it pay to water?—In southwest Iowa the observation of the writer favors an affirmative answer. At the nick of time when apples are about half grown, one heavy watering will make the difference between high-priced select fruit and rejected fruit in our best markets. Large covered reservoirs, with cemented sides and bottoms, can be excavated and cemented on the highest side of the large commercial orchard at less expense than is usually suspected. To lessen evaporation, and the freezing of the cement in winter, the reservoirs are covered with straw resting on poles. On hilly ground, like much of Mills county, these reservoirs may be filled by the surface water of rains and melted snows from a small area on a higher level by timely directing the little drainage centres. The best way to draw off the water when needed is by a gas pipe run through by boring from a lower level to the bottom of the reservoir when constructed. This favors the removal of the sediment in the bottom by stirring up the water when it gets low.

In watering, V-shaped troughs are used, adding a section at a time in running the length of the row. On drift soils, like those of Iowa and Russia, too much water is required to flow across the orchard, and the side nearest the reservoirs gets too much water. In eastern Russia, the orchards on the bluffs of the Volga are nearly all watered in this way. Counting the interest on the amount invested in plant, cost of keeping up, and labor, a number of large orchardists assured the writer that they could water the trees heavily twice at less per tree than the price of half a bushel of apples and that the gain some years was practically a whole crop, amounting to hundreds of dollars. But the Russians water their trees twice, once when the fruit is about half grown, and once in the fall after the fruit is picked, to insure the safe wintering of the trees. But with us, as a rule, the fall watering can be dispensed with, as usually we have quite abundant rains at that season. In hill and bluff sections this method of orchard and small fruit watering is far cheaper than ditch irrigation in the west, as our rainfall is so nearly sufficient that it only needs some aid in late midsummer. I will only add that it will pay to use such reservoirs for large orchards if the water is pumped by windmills in winter and spring when water is plentiful, and this is necessary where nature has not provided for an inflow of surface water from a higher level.

Top-grafting the Apple.—If the plan of thick planting, in north and south rows, be adopted, top-working will not be needed in southwest Iowa. But those that persist in planting isolated trees, with high stems, will exhibit wisdom by top-working such varieties as Jonathan, Grimes Golden and Ben Davis on stocks not subject to stem injury, as the tendency to this trouble will increase most likely as the years go on.

THE FUTURE OF OUR NATIVE PLUMS.

BY PROF. J. L. BUDD, AMES.

A few years ago, the older members will remember, not a single variety of plum was propagated in northeastern Iowa except the Miner. Now we have in the state such fine varieties of the Miner (*Hortulana*) type as Keith, Maquoketa, Forest Rose and Milton, that find a quick sale in any market and that will bear crops without intermingling with varieties of the *Americana*.

Of the latter type we also have a great number of choice varieties, such as Wyant, Wolf, Hawkeye, De Soto, Cheney, and other less known but equally valuable varieties.

As to their status in market a careful inspection and study of South Water Street, Chicago, will tell the story. Even in New York, Philadelphia and Boston, our best native plums find a quick sale in competition with the best European and Japan varieties. One of the oldest and most extended commercial plum growers of the east, Mr. J. W. Kerr, of Denton, Maryland, recently astonished many readers of the Rural New-Yorker with this statement:

"Since 1882 I have devoted special attention to what are popularly termed native plums, starting with the Wild Goose, supplemented by Newman, Moreman, and one or two others. I have drifted along until my orchards comprise over one hundred and fifty native varieties. I have lately confined myself mostly to the native because those of European origin were unprofitable and unsatisfactory in nearly all respects, and I am in the fruit business for revenue as well as for education and health."

Among the many natives he finds profitable he names Wild Goose, Milton, Whitaker, Col. Wilder, Charles Downing, Osage, Wolf, Rockford, Ocheeda and Hawkeye. As yet it appears he has not discovered the market value of such sorts as Keith, Maquoketa, Forest Rose, Wyant, and others locally known in Iowa. Mr. Kerr adds: "I have not named a native that has not proven more profitable as a market plum one year with another than any European or Japan variety." When marketed in neatly put up baskets he reports that our native sorts sell repeatedly to the same customers at better prices than the best Japan or European sorts he has sent to Philadelphia, Baltimore, New York and Boston.

As yet we have no extended commercial plum orchards in Iowa, and we rarely see in market west of Chicago neatly put up baskets of our best native plums. To show their real status as market fruits, I will say that during the Columbian exposition three Germans visited the Iowa Agricultural College. On my office table we had a box of Keith plums, a box of Maquoketa, and a box of Wyant. By their side were placed small boxes of several California plums from the groceries. After testing all the samples, their praise of our native sorts was unbounded, and they at once made arrangements to secure scions with a view to introduction in Germany.

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What car Here and the California, ha crossing with and quality o reached by M six years ago of the hybrid color and net shape are lik the trees exc the College g never flagge The fruit is they have th and are perf

Joining believing th native and f in the select the peculiar home circle varieties w plums, like leaf, bud, a juiciness ap our best so orts stand of tree wil

The reason for this early market recognition of our native sorts is not on account of size, but their freedom from the pasty, cloying flesh peculiar to most foreign varieties, and their sprightly refreshing flavor.

The best varieties we now possess will mainly capture the markets of the west when we have growers in a commercial way who handle the fruit in a methodic manner. All this has been the outgrowth of mere selection and testing of our best native sorts from the thickets in a very brief period. It is a grand foundation. No country of the temperate zones has been blessed by Dame Nature with plums of such size and quality.

What can we say of the improvement of these fine varieties in the near future? Here and there we are given some valuable hints. Luther Burbank, of Santo Rosa, California, has demonstrated that the size of our native plums can be increased by crossing with European pollen without losing the tenderness, sprightliness, juiciness and quality of our natives. Our experience on the College grounds verify the result reached by Mr. Burbank. As an instance, we crossed the blossoms of the De Soto six years ago with the pollen of a Japan variety from Oregon. The leaves of two of the hybrids resulting are larger and thicker than those of either parent, but in color and net-veining they resemble those of the De Soto. The buds, however, in shape are like the Japan variety and most of them are triple. In vigor of growth the trees exceed either species. During the past hot, dry summer the De Soto on the College grounds has suffered and made trifling growth, while the hybrids have never flagged a leaf and have made an extension of growth of from two to four feet. The fruit is a clear union of the two species with deep sature and blue bloom, yet they have the sprightliness of flavor and freedom from pasty flesh of the De Soto and are perfect freestones.

Joining these, and still other experiences, we have the best reasons for believing that within the next fifteen years we will have hybrids between our best native and foreign plums that will unite the good qualities of the two species. But in the selection of these hybrids we must keep in mind the retention in large part of the peculiar flesh and flavor of our fine natives now finding favor in our markets and home circles. At present we favor the belief that our hybrids with the Japan varieties will give the best results. Our reasons for this belief are: (1) The Japan plums, like our natives, bear young. (2) They more nearly resemble our natives in leaf, bud, and habit of growth. (3) Some of them have a tenderness of flesh and juiciness approaching that of our best natives. (4) They cross more readily with our best sorts than do the west European varieties. (5) The leaves of the Japan sorts stand our summers as well as our natives, and their liability to winter-killing of tree will be done away with by crossing with our natives.

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