Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

Coloured covers / Couverture de couleur		Coloured pages / Pages de couleur
Covers damaged / Couverture endommagée		Pages damaged / Pages endommagées
Covers restored and/or laminated / Couverture restaurée et/ou pelliculée		Pages restored and/or laminated / Pages restaurées et/ou pelliculées
Cover title missing / Le titre de couverture manque		Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
Coloured maps /		Pages detached / Pages détachées
Cartes géographiques en couleur		Showthrough / Transparence
Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)	✓	Quality of print varies / Qualité inégale de l'impression
Coloured plates and/or illustrations / Planches et/ou illustrations en couleur Bound with other material / Relié avec d'autres documents		Includes supplementary materials / Comprend du matériel supplémentaire
Only edition available / Seule édition disponible		Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une
Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.		restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.
Additional comments / Commentaires supplémentaires:		

THE

CANADIAN HORTICULTURIST,

PUBLISHED BY THE

RUIT GROWER'S ASSOCIATION OF GINTARIO.

VOLUME IV.

EDITORS

D. W. BEADLE.

ST. CATHARINES:

E. S. LEAVENWORTH & SON, GENERAL BOOK AND JOB PRINTERS.

1881.

INDEX

TO THE

CANADIAN HORTICULTURIST.

VOL. IV.-1881.

			=
Α.	ŀ		ige.
	age.	Bonne du Puits Ansault Pear	92
Action of Frost	86	Brighton Grape22,	04
	134	Brockworth Park Pear	37
Agricultural Commission	63		136
Althea	85	2165 0 1000 1117 1 000 1111 1111	133
Alexander Peach	133		154
Amaryllis Culture	91	standy with the poorty first the	154
American Evergreens	32		189
American Holly	28	Butternut	50
Ampelopsis	28	~	
	133	C.	
Apples, How disposed of	1	Carbolic Acid	43
	185	Caroline Raspberry	128
	186	Carmine Peach	136
	186	Carpenter's White	136
	187	Captain Jack Strawberry	153
Arnold's hybrid Raspberry	30	Cellini Apple	37
Arnold's Beauty Apple	36	Champion Grape	79
Arnold's Pride Strawberry	170	Clarke's Raspberry128,	155
	135	Clematis	172
Atlanta Peach Autumn Planting	14	Cox Orange Pippin	36
Autumn Berries	26	Codlin Moth80, 157,	171
Australian Commission	91	Cooledge's Fav't Peach	134
Australian Commission	91	Conklin Peach	135
B.		Cole's Early Red peach	135
В.			136
Bees Cutting Grapes	7		154
Berberry 27		Crescent Seedling "112,	153
Beaconsfield Grape	79	Crimson Garlande peach	135
Bedding-out	96	Cranberry Pippin	68
Ben Davis Apple		Cuthbert Raspberry 24, 129,	155
Belle Coquete Peach	134	Cumberland Triumph113,	153
Belle de Doue	134	Currants	156
Belle de la Croix	134		172
Belle de Beauce	134		
Bitter Sweet	28	D.	
Black Walnut 20, 51,	108	Dagmar Peach	135
Black Knot, 137,	143	Dempsey Potato	189
Black Oak	161	De Graw's White Peach	136

	Page.		
Delaney Heath Cling Peach	136	Glendale Strawberry113, 1	54
Delaney freath Oling I cach	28	Gladiolus le	68
Dogwood		Goshawk Peach 1	35
Downing Gooseberry	31	Gustiawa i cach	37
Doct. Reeder Peach	92		
Dovenne d'ete Pear	120	Gooseberries31, 13	20
Doolittle's Raspberry	129	Grape Sugar	5
Desch	137	Grapes, Early	7
Downing Peach	40	Grand Sultan	27
Drying Fruit		Grand Duke Constantine37, 1	27
Druid Hill Peach	136	Grand Duke Constantine 111111111111111111111111111111111111	47
Duncan Strawberry	154	Grapes,40, 77, 144, 1	78
Duchess of Oldenburg	187	Graiting	
Duoness of steering			.77
E.	i i	Greenfield Plum 1	81
. ,	_ 1	Gregg Raspberry24, 129, 1	156
Early Grapes	7	Grimes' Golden Pippin 35,	99
Early Pears	7	Clara Micropho	L34
Early Canada Strawberry	114	Grosse Mignonne	
	134		
Early Beatrice Peach	134	H.	
Early Louisa Peach			
Early Rivers Peach	134	Haas Apple	36
Early Leopold Peach	134	Hale's Early Peach	134
Early York (Rivers')	134	Little 2 Therry I odout	134
	134	Hames Larry Leach	14
Early Rose Peach		Herbaceous Perennials	
Early Savoy Peach	10"	Hedges	59
Early Alfred Peach	107	Heath Free Peach	136
Early Silver Peach	135	Herstine Raspberry	155
Early Joe Apple	. 187	Hickorynut	52
Ensilage		Hickoryhut II.	
Euonymus		Highland Hardy 128,	136
	07	Time chia 1 baok 1.1.	
European Berberry	0.4	Honeysuckle, The Bush	3
Eumelan Grape		Hoover's Transparent Apple	19
Evergreens	. 166	Houghton's Gooseberry	31
		House Plants	69
F.			, 20
	0. 10/	Hydraugea paniculata 9	,
Fameuse	.85, 186	Τ	
Fall Winesap	. 187	I.	
Fertilizers, Chickens as	. 29		49
Fences	. 33	Insects	43
Fig Culture	. 182	Irrigation	116
Fig Culture		_	
Flemish Beauty Pear	21 00	J.	
Flower Seeds	, 61, 50		
Flowers	. 190	Janesville Grape21	. 29
Forest Tent Caterpillar	119, 130	Japanese Squash	68
Foster Peach	135		135
Fruits, New		Jacques' Rareripe Peach	
		Jefferson Grape	17
Fruits, Drying		Jersey Peach	136
Fruits at Clinton			58
Fruit Growing at Templeton	83	Lanes' Sandling Peach	136
Fruit Canning	90	I longthan Apple	187
Fruit in a Hurry	103	Jonathan Apple	
Fruit in Manitoba	109	K.	
Fruit Culture in Goderich	110	1	
		, l	40
Frost, Action of			40
Franconia Raspherry) i	
Fuchsias	174	L.	
G.		t 1 Westernates Apple	19
Clambon Uses		Lady Washington Apple	91
Garden Peas	44, 5	5 Lady Grape	31
Ganargua Raspberry	15	5 Lady Grape	136
	15	5 Lady Crape	

	114.	•	
Pag	re 1	P	ıfe.
- 2		.	61
		Planting Flower Seeds	
Late Morris White Peach	36		128
Leopold I. Peach 13	35	Plant Young Trees	190
Lee's Prolific Current	68	Plum Curculio	89
Lee S I Politic Cultivity People	36	Plant Distribution for 1882	167
Lord Palmerston Peach 1:	~	Poole's Large Yellow Peach	136
3.6	1	Pocklington Grape175,	
M .	1	Pockington (trape	187
35. 41.	36		
Attenti Tippici	35	Potatoes	100
		Potato Beetle	137
THE TOTAL PROPERTY OF THE PROP	35	President Drouard Pear	38
Mammoth Melocoton	36	Princess Louise Apple	74
Maggie Strawberry 1	54	Prince of Wales Peach	135
Mammoth Chester Raspberry	55	Princess of Wales Peach	136
	88	Princess of Wates Feach	42
	43	Protecting Grapes	135
1121401122		Pucelle de Malines Peach	1.50
in the state of th	13	^	
	24	Q.	
Mossing Surface of Pots	4		
Morning Glory Peach 1	35	Queen of the Market Raspberry	155
Morris White " 1	35	4	
2.2011.10 11 2.10	68	R.	
middle b marry campa	72		154
		Raspberries 56, 128, 145,	104
	36	Raymacker Peach	190
McIntosh Red Apple	61	Red Cheek Melocoton	136
	1	Red Oak	161
N.	1	Red Astrachan Apple	186
37 (75)	K 5	Dell Astrachan Tepper	188
	55	Renewing Strawberry Beds	
New Fruits 12, 146, 1	16	Reports on Plants, etc.,93, 142.	181
New Potatoes	31	170, 172,	101
New Apples	35	Ribston Pippin Apple	186
New Pears	37	Rivers' Early York	134
Negley Pears	37	Rock Chestnut Oak	160
New Dominion Strawberry113, 1		Roses	48
Mew Dominion Strawberry	36	Roses	85
		Rose of Sharon	
	29	Rot in Tomatoes	100
Northern Spy 1	87	a	
Nut Bearing Trees	49	S,	
Nut Planting	107		90
,	- ()	Salem Grape	30
Ο.	1	or loops Deach	136
•,	į	Sample White Peach	136
Oaks	159	Saunders' Peach	137
	136	Saunders reach	187
Ontario Apple	36	Saxton Stripe Apple	
	63	Scott's Winter Apple	188
Ontario Agricultural Commission,	'	Spedling Peaches	124
Ornamental Trees			0.4
	162	Senasaua Grape	, 74
TO .	102	Senasqua Grape	153
P.	102	Senasqua Grape	153
_		Senasqua Grape	153 135
Pansy23.	69	Senasqua Grape	153 135 157
Pansy23, Packing Fruits	69 38	Senasqua Grape	153 135 157 152
Pansy 23, Packing Fruits 23, Pears, Early 23,	69	Senasqua Grape 12, 2 Sharpless Strawberry 115, Shanghae Peach 115, Sheep in the Orchard 115, Small Fruits Smock Free Peach	153 135 157 152 136
Pansy 23, Packing Fruits Pears, Early Peaches, Seedling	69 38 7 14	Senasqua Grape	153 135 157 152 136 186
Pansy 23, Packing Fruits Pears, Early Peaches, Seedling Pears 44.	69 38 7 14 55	Senasqua Grape	153 135 157 152 136 186 28
Pansy 23, Packing Fruits Pears, Early Peaches, Seedling Pears 44.	69 38 7 14 55	Senasqua Grape	153 135 157 152 136 186 28
Pansy 23, Packing Fruits 23, Pears, Early 22, Peaches, Seedling 44, Peaches 56.	69 38 7 14 55	Senasqua Grape	153 135 157 152 136 186 28
Pansy 23, Packing Fruits 23, Pears, Early Peaches, Peare 44, Peaches 56, Pear Blight 57, 89,	69 38 7 14 55 133 106	Senasqua Grape 12, 2 Sharpless Strawberry 115, Shanghae Peach 115, Sheep in the Orchard 115, Small Fruits Smock Free Peach Snow Apple 85 Snowberry Souvenir Du Congres Pear Soil for Fruit Trees	153 135 157 152 136 186 28
Pansy 23, Packing Fruits 23, Pears, Early Peaches, Peaches, Seedling 44, Pears 44, Peaches 56, Pear Blight 57, 89, Pear Culture 57, 89,	69 38 7 14 55 133 106 105	Senasqua Grape 12, 2 Sharpless Strawberry 115, Shanghae Peach 115, Sheep in the Orchard 115, Small Fruits Smock Free Peach Snow Apple 85 Snowberry Souvenir Du Congres Pear Soil for Fruit Trees Sorghum 12, 2	153 135 157 152 136 186 28 19
Pansy 23, Packing Fruits 23, Pears, Early Peaches, Peaches, Seedling 44, Pears 56, Pear Blight 57, Pear Culture 57, Pelargoniums, Perpetual	69 38 7 14 55 133 106 105	Senasqua Grape	153 135 157 152 136 186 28 19 39 46 187
Pansy 23, Packing Fruits 23, Pears, Early 22, Peaches, Seedling 44, Pears 56, Pear Blight 57, 89, Pear Culture 23, Pelargoniums, Perpetual 23, Perry Russet 24,	69 38 7 14 55 133 106 105 90	Senasqua Grape	153 135 157 152 136 186 28 19 39 46 187
Pansy 23, Packing Fruits 23, Pears, Early Peaches, Peaches, Seedling 44, Pears 56, Pear Blight 57, Pear Culture 57, Pelargoniums, Perpetual	69 38 7 14 55 133 106 105	Senasqua Grape	153 135 157 152 136 186 28 19 39 46 187

Page	٠. ا		Page.
St. Lawrence Apple 186		Vicar of Winkfield	74
Staff Tree 26		Virginia Creeper	28
Stump Apple 30	6		
Strawberry, History of the 68		\mathbf{W} .	
Strawberries, 111, 153, 189	8	•	
Stump the World Peach 130	6	Wallbridge Apple	36
Sugar, Manufacture of Grape	5	Waterloo Peach	133
Sugar Making 4	11	Ward's Late Free Peach	136
Surnassa Melocoton 13	35	Walburton Admirable Peach	136
Specuehannah Peach	36	Wealthy Apple,10, 36,	, 187
Swavzie Pomme Grise 3	36	Whitewash	16
Sweet Potato Culture	32	Whorled Winterberry	27
Sweet Chestnut	51	White Melocoton Peach	136
	İ	Wild Cornel Tree	28
\mathbf{T}_{c}	ì	White Oak	160
		Wild Thorn	28
Talman Sweet Apple 18	37	Winter Blooming Window Plants,	8
Telegraph Grape 2	22	Wine Making30, 94	, 182
Tetofaky Apple 18	87	Winter Meeting	33
Thwack Raspberry 15	55	Window Gardening	121
Tomatoes Rotting 169, I8	83	Windsor Chief Strawberry	153
Transplanting125, 14	48	Wilder Peach	137
Tree Agents 16	61	Wistaria	97
Turner Raspherry 129, 15	54		
		Y.	
∇.			
		Yellow Transparent Apple32	2, 187
the partie a dollar business,	36	Yellows iu Peach	119
Van Wyck Sweet Crab 4	46	Young Orchards	120

From the RURAL NEW-YORKER of July 8th, 1882.

The Manchester, regarding which we have hitherto restrained any positive expression of opinion, is one of the most desirable strawberries we have ever raised, and we have tested not less than 250 different kinds. The only thing that can be said against it is that it is a pistillate, and must be grown near perfectflowering sorts, which for many farmers is attended with trouble or perhaps inconvenience. Our plants are exceedingly vigorous and productive. We have just examined them and find that each plant. on an average, bears 16 peduncles or flowering stems, and that each flowering stem bears, on an average, 10 berriesgiving 160 berries to a plant. We beg to emphasize that we are speaking of average plants. On one plant we counted 22 peduncles and 220 berries in the various stages from ripe to just set. berry is firm, very uniform as to shape, which is roundish conical;—it ripens in every part and averages above medium as long as it remains in fruit. The quality when ripe is good, though, like the Wilson, it is sour when it first colorsa characteristic, it seems, of all excellent market berries. It ripens with the Sharpless and after the Bidwell,

It thrives in a light, dry, sandy soil. With us it thrives in a moist soil inclining to clay. Several years ago, from our own tests, we spoke highly of the Sharpless, and soon after its introduction, of the Cumberland Triumph. We have never had occasion to regret this, and we have now little fear that we shall regret commending the Manchester to our readers as the best market berry at present known.



"MANCHESTER".

PACM J. T. LEVETTÖG. PRAWBERRY CATALOGUE

Chartlart.lish. 36Veney

The Canadian Morticulturist.

VOL. III.

JANUARY, 1881.

[No. 1.

HOW OUR NEIGHBORS DISPOSE OF THEIR APPLES.

Having occasion to visit the City of Rochester in the interests of the Canadian Horticulturist during the past month, the opportunity was improved by making some inquiry into the disposition of the large crop of apples harvested the past season. There has been an unusually large yield of apples in the vicinity of Rochester, and we expected to hear that a great many bushels had gone to waste because there was no method whereby they could be turned to account. But such was not the case. A good market had been found in the cities for all the really sound first-class fruit at fair prices. Then the evaporators had bought up all of the next grade and prepared them so that they would keep for an indefinite length of time, diminished in bulk and weight so that they can be easily transported. And last of all the Cider Company had bought up all the rest, so that there was not an apple of any quality, good or bad, that had not found a market.

The Reports of the Fruit Growers' Association having very fully described the process of evaporation, and given exhaustive accounts of the products and their use, it was decided to spend the time at command in visiting the works of the Duffy Cider Company. The main building of this manufactory is one hundred and twenty by two hundred feet, in which are the steam engines that supply the power, the mills for grinding the apples, the presses for extracting the juice, and the vats in which the cider is filtered and clarified before being barreled for market. The building in which the apples are received is of two stories, and at present only three hundred feet long, but being extended two hundred feet, so that when completed it will be five hundred feet long. Into the second story the apples are unloaded from the cars, in which they are brought from a distance; and the first story receives the apples brought by the farmers from the adjacent country. The mills, there are two, are capable of grinding

each a thousand bushels per hour, so that with one set of hands they can work up ten thousand bushels per day. The yield is about three gallons and a half to the bushel of apples taking the average of the season. Each press takes one hundred and ten bushels of apples to a cheese, and about forty minutes is consumed in the pressing of each cheese. During the past season they had used up about five hundred thousand bushels of apples, all of which were of no value for any other purpose, not being good enough for the evaporators. The apples had cost them about fifteen cents per bushel, averaging to the grower this year from ten to twelve and a half cents.

This year the farmers got fifteen cents per bushel for apples that were good enough to use in the evaporators, but this was a season of great plenty and prices ruled low. Usually they get for such fruit about twenty-five cents per bushel.

The cider manufactured by this company is mostly clarified by filtering through sand of a peculiar character, which is brought from Massachusetts, and after being prepared for market will keep without change the year round. It is retailed by them at two dollars per barrel of thirty-two gallons, and sold at wholesale at one dollar and twenty-five cents.

After the cider has been pressed out, the pomace is saturated with water and left to ferment, and when this fermentation has reached the proper point it is again pressed, and the product made into vinegar.

To what uses this eider is put after leaving the factory is matter for conjecture. Doubtless much of it is used in the manufacture of wines of various sorts, most prominent among which are the various sparkling wines that are so much sought after in the American market. Some of it is probably distilled and made into beverages of a more potent character.

If these methods of using up inferior apples become general, it would seem that the temptation to barrel apples of poor quality should be much lessened, and we may hope to see only such as are strictly sound and of first quality sent to market in the fresh state. It is trying to the producer to sort his apples with the proper care, when he knows that all that are not marketed in the barrel are of no money value to him; but when he knows that there is a market for every one, even the very poorest, and that unless his barreled fruit is put up with the greatest care it will bring but a poor price, then he will

not be so anxious to get rid of his apples as to spoil the price of his barreled fruit.

Another result from this clean consumption of all the apples will doubtless be a very great reduction of the codlin moth; for every apple being removed from the orchards, and the wormy fruit in particular subjected to these processes of manufacture, the insects will be taken to factories and there so severely handled that most of them will perish. Is there not in this a more sure and universal trapping of the codlin moth than would be effected in a century by the scattered use of bands of paper or cloth or any other of the traps that have been devised for lessening their numbers? Should this result follow, there will soon be an abundance of perfect fruit, free from the excavations of these little pests, to gladden both producer and consumer.

THE BUSH HONEYSUCKLE.

Honevsuckles we generally think of as climbers. Their rich, shining, glossy leaves, and in many cases, sweet sented flowers, are seen clustering above the eaves of every cottage by the wayside. No plant is more generally healthy, and none bears with less injury the rigours of the most trying exposures. Lonicera is the botanical term applied to all honeysuckles, but under the term are included forms that are as far removed from a climbing vine as any shrub. These forms of honeysuckles are genuine shrubs, not climbers artificially trained into shrubs after the method often applied to wistarias and trumpet creepers. They have every attribute of a shrub, and some of the best attributes developed in a high degree. These attributes are naturally shared in nearly equal degrees by both climbers and bushes of the genus lonicera, and they consist largely in extreme hardiness and vigor or growth. In the roughest, most exposed positions by the seashore, or on bleak hillsides, may be seen in the thriftiest, healthiest condition, honeysuckles of all kinds, and particularly those called fly honeysuckles or bush henevsuckles, Lonicera or Xylosteum. It is true the habit of the bush honeysuckle is a little coarse, but it is so vigorous, and such a lively green throughout the season until late fall, that one forgives it a little want of fineness of nature.

Their flowers are not specially conspicuous, but always pleasing, ranging in the several species and varieties through many shades of white, yellow, pink and red. There are at least fifty species and varieties known in collections, and among them is considerable variety of color and form, although the general appearance of all bush honeysuckles is much the same. All have good-sized, bright green leaves, quite distinct from those of the climbing honeysuckle, but the general appearance of the leaf and size of the flower is much the same. The different species come from widely diverse

regions of the temperate zone, from both Europe and Asia. One of the very finest, L. fragrantissima, with white petalled and yellow stamened flowers, early bloom and vigorous habit, was introduced from Japan a little more than thirty years ago, while L. alpigena and L. carulea have been mentioned and more or less employed for nearly 400 years. The best known in gardens of the present day are the red and white Tartarian honeysuckles L. xylosteum or English fly honeysuckle, L. ledebouri and L. canadensis. The flowers of the last three are yellow or yellowish brown; and canadensis, more inclined to climb than other bush honeysuckles, is specially noteworthy for leaves of a beautiful silvery-grey color.

But honeysuckles have another charm in their fruit or berries, that cannot be praised too much or too often. All through August and September these berries stand in small, thick clusters on the ends of the stiff, upright branches. They are red or orange, and very effective, especially as shrubs with ornamental seed vessels are none too plenty. The positions that bush honeysuckles should occupy on the lawn are within the outskirts

of the group, among the more massive and less refined shrubs.

Bush-honeysuckles cannot be fairly classed among the most beautiful deciduous shrubs, yet their vigor and general hardiness are so excellent, their flowers in spring, in many species, so sweet, and the foliage of such a bright, attractive green, that no lawn, and scarcely any considerable shrub group, can afford to neglect their charms. After this assertion I need hardly say that bush honeysuckles receive too little employment at present.

—S. Parsons, Jr., in Country Gentleman.

MOSSING THE SURFACE OF POTS.

Covering the surface of pots with moss is very beneficial, as well as enhancing to the sppearance of the plants. A good many kinds of succulent growing plants during their season of rapid growth require when growing in pots a great quantity of moisture at the roots. This is the case with such kinds as carnations, bouvardias, heliotropes, geraniums and roses, especially if grown in a house heated by artificial means, and a minimum of 50 degrees maintained. A good many failures with roses during winter are caused by not supplying sufficient water to the roots when growing. For years I made this mistake myself, but as we are daily learning the nature and requirements of plants better, I find that too much water cannot be given roses growing in a high temperature, having plenty of healthy foliage, so long as there is sufficient porosity in the soil to prevent saturation. Dryness at the roots is often the cause of mildew on plants, and is also the cause of the plants producing imperfect buds. I have seen a house of roses in strong, succulent, healthy growth, allowed to get dry at the roots (not sufficient to cause the shoots to wilt, but enough to check the rapid circulation of the sap in the shoots,) to be covered with mildew a short time after, and the cause laid to injudicious airing or to extremes of temperature, when insufficient moisture was the real cause. I do not say but that mildew arises often from injudicious airing and firing, but I do assert from observation that it also often arises from injudicious watering.

Now, for the purpose of helping avoid this evil and maintaining a better degree of moisture at the roots, during a period of severe weather when strong fires have to be kept up to maintain the required temperature, it is a good plan to cover the surface of the pots, or if growing in shallow benches, the surface of the bed, with moss, which may either be the green moss found growing on stumps and stones in moist parts of woods, or sphagnium moss found in swamps; this latter is the kind I generally use, but the other is the prettiest for house plants. Peter Henderson recommends mixing bone dust with the moss as a fertilizer to the plants. For plants somewhat exhausted from being a good while in pots, this is very desirable, and for the last year during which I have adopted this plan, I found it very beneficial for recuperating plants which make feeble growths from being long in pots. The moss, from its moistness, brings the roots to the surface, and if food is supplied them, a fresh and vigorous growth is the consequence.

Instead of mixing the bone dust with the moss, I often mix it with a little soil, and sprinkle it on the surface of the pots before putting on the moss. This is the better way with house plants, as it keeps the bone covered, and therefore prevents any disagreeable smell from arising. Fertilizing house plants has generally been a difficult matter with window gardeners, but the above method overcomes most every objection formerly met with, and will be found as beneficial as any method generally recommended.

All my bouvardias, heliotropes, roses, and other plants growing in pots for winter flowering, I had covered shortly after placing them in their winter quarters—the result being more flower, larger trusses and buds, and I think better colored, than when grown without any covering on the surface.

-M. Milton, in Country Gentleman.

THE MANUFACTURE AND USES OF GRAPE SUGAR.

We clip the following article from the Breeder's Live Stock Journal, and ask, if the manufacture of glucose or grape sugar is so profitable, what is there that prevents its manufacture in Ontario, to the benefit of the producer of the corn and the consumer of the sugar, and the establishment of another home industry. The manufactory that consumes two thousand bushels of corn per day, or about six hundred thousand bushels a year, would help to steady the price of corn. The article is as follows:—

Not long since Mr. John L. Alberger, of Buffalo, N. Y., one of the original inventors of the process of making glucose and grape sugar, brought suit for \$450,000 against the Buffalo Grape Sugar Co. Mr. Horace Williams who, it is claimed, understands the question thoroughly, testifies as follows in that suit:

"The manufacture of grape sugar from corn was commenced originally by Williams and his partner. He invented some of the machinery by which the process was brought to perfection. He obtained patents in order to keep his process a secret. Their firm name was then A. W. Fox & Co. They commenced with two or three hundred bushels a day, and increased this amount gradually to two thousand. This was the amount in The Buffalo Grape Sugar Company was then organized. were two hundred shares, of which Fox owned 102; witness owned sixty shares, and the balance was held by William Hamlin. Improvements have since been made in the machinery, by which a better article of sugar is made and with greater facility. They first produced a crude sugarused in the manufacture of ale and lager beer, principally ale. The sugar was used in the place of malt. At a later date they refined the sugar. Grape sugar was also used in 1874 by tobacconists. As its quality was improved it was used in other branches of business. A large quantity is now used in making sirups for table use. Witness knew there was very little pure cane syrup sold now. The grape sugar is more wholesome and delicious. Glucose and grape sugar are one and the same thing-glucose being the sugar in liquid form. When it is called grape sugar it is in a solid form. This is being used considerably in New York in mixing sugar. making what is called improved sugar. Witness understood that the Buffalo Grape Sugar Company was interested in this mixing of sugars in New York. At the present time the demand for grape sugar exceeds the supply, and the price of it has increased. In 1864 thirty pounds of sugar were made from one bushel or fifty-six pounds of corn. The price was then from $3\frac{1}{2}$ to 4 and sometimes $4\frac{1}{2}$ cents a pound. The refuse is sold as feed. and the price of it was from 7 to 8 cents a bushel. In mixing sugar the grape sugar is pulverized and about twenty-five per cent, added to cane sugar. It improves the color of the sugar, and enables dealers to sell it for a better price.

During 1874 and 1875 the carnings were about \$15,000 a month, and in 1876 they averaged from \$19,000 to \$20,000. In 1878 the earnings for one month were \$35,000. Witness did not see many statements during A starch factory was run in connection with the sugar works, about 500 bushels of corn being used each day. Witness did not know about the earnings of the starch factory. He was aware that the business was profitable. He understood all of the process of the establishment and had charge of the manufacturing of the sugar, glucose, etc. He made estimates from time to time of the cost of turning a bushel of corn into sugar, and in doing so took into consideration the outlays, cost of machinery, buildings, etc. He estimated it to be about twenty-five cents per bushel, and the net profit of a bushel of corn at forty five cents a bushel, when turned into sugar, to be seventy cents. A number of small manufactories have sprung up in this country, but there are only four or five of any account. amount of corn consumed in 1879 was from 4,000 to 6,000 bushels a day. In some respects it costs less per bushel to run a large amount of corn than it would to consume a small quantity. The net profit per bushel from 1874 to 1879 was from 40 to 50 cents."

EARLY GRAPES AND ENEMIES.

"Bees don't cut grapes." Don't they, though? I have known grapes ever since the days when the York Maderia, the Isabella and the Catawba were the only sorts out, and these only very little disseminated, but I have never had them injured, as by bees or wasps, until this season. I first noticed the depredation going on over some fine bunches of Iona which were growing on a frame between Concords. I covered these with paper bags and so secured them; but the bees went on along the frame of Concords and soon there were I and X shaped slits cut on the ripest berries of nearly every bunch, and crowds of bees buzzing and sucking and bearing off the juice. A very few wasps were participating, and in one place some ants, and I was troubled to find who began it, who made the first cut, much as one is over the asseverations of a set of boys who have been conjoints in a piece of mischief. The ants and wasps have been here through all the fifty years of my experience, and never were known to do such things; neither have our common bees. But the bees at work here were the ring streaked with yellow Italians, and although I cannot see well enough to make out how they snip the grape with a cut just like that of a can opener, I believe they do it. It is somewhat singular that other Concords on a higher frame have not been touched, nor any other sorts near, since we cleared the frame first attacked and used what fruit was left to make syrup and marmalade.

As to earliest grapes, the downy stout wood of the Champion makes it seem to be a seedling of the Hartford. Both fruit and bunch are small, and the quality is less than tolerable. But it does not drop as Hartfords are so apt to do. I have a grape called the Paxton, which resembles the Hartford in every particular of vine and fruit, is evidently of the same strain, and would appear identical with it, only that the fruit hangs well, becoming very tender and rich when Concords are entirely ripe and passing their prime. If the Creveling would fertilize so as to have complete bunches, uniformly, it would be the best earliest grape among all here, (Central Pennsylvania.) It also hangs well and attains a very delectable flavor. All things considered, we count the Worden our best earliest.

-W., in New York Tribune.

A SPLENDID EARLY PEAR.

Petite Marguerite is one of Mr. Andre Leroy's seedlings, and it was held in such high esteem by that celebrated French pomologist that he named it after the youngest of his grand daughters. In the year 1863 it was first offered in France, and in this country it has been on trial several years, but not until recently have its merits been recognised, and its propagation and dissemination seriously undertaken. This shows how much time is required to determine the value and to raise a stock of new fruit. Mr. Leroy was remarkably fortunate in the production of choice pears, but many of his seedlings, like Eugene Appert, Henri Desportes, Madame B. Desportes, Mad. Andre Leroy, and Maurice Desports, are

such indifferent growers that nurserymen will not attempt to propagate them, and these sorts must therefore remain comparatively unknown, at least until a higher estimate is placed upon quality, and cultivators are willing to pay an extra price for choice kinds that are difficult to raise in the nursery. These varieties will all have to be double worked, which of course adds to the cost of the tree. Petite Marguerite, although a moderate grower, both on pear and quince, is sufficiently vigorous to satisfy nurserymen, and I hope in the near future to see this valuable pear extensively propagated in the nurseries. The list of choice early pears is not so large but a few more good sorts may be added, and I am certain that all lovers of fine fruits will welcome the new comer. There is no doubt that when this pear becomes known, it will be regarded as indispensable.

It is of medium size, just large enough to be acceptable as a desert fruit; skin green, covered with grey and brown dots, and sometimes bronzed on the side exposed to the sun; flesh greenish white, fine, melting, juicy, acidulous, with a pleasant perfume. Ripening, as it does, about ten days before the Bartlett, it possesses a particular value as an early pear. As a fruit of the very first quality, it can be highly reccommended to connoisseurs for the table, but it is not large and showy enough for market. Mr. Leroy, in his Dictionnaire de Pomologie, describes it as the best pear ripening in August. We believe this statement to be as true in America as it is in

France.—W. C. BARRY, in Country Gentleman.

BLOOMING WINDOW PLANTS FOR WINTER.

One of the most constant winter bloomers is the Chinese primrose. I have had them in bloom from last October and the end is not yet, for some of the precocious things seem to say: "I will not rest, but keep right along in flower." The ones raised from seed every year are, however, the most floriferous, and for that reason I grow them from seed.

The Bouvardia is another abundant bloomer. It likes abundant heat, and the leaves must be frequently syringed or they will certainly drop off with rust. Heliotropes are good window plants, luxuriating in all the sun

they can get, with abundance of water at the roots.

Calla lilies, if potted in September, will commence to bloom about

Christmas.

The Browalia makes a very pretty pot plant for fall and winter decoration of the parlor, and by planting a few seeds of it together with mignonette and alyssum, a little nosegay may be gathered late in the fall. For this purpose the seed should be sown at intervals during the summer for succession, and as soon as the plants are large enough, put in small pots and shift to larger ones as the plant grows.

All geraniums are excellent window plants, and some of them are handsome enough in their foliage even if they produce no flowers. The most constant bloomer is Mater Christine, but is a single pink, a color I am not personally fond of. Jean Sisley, a good scarlet with a large white eye, is a great favorite of mine, and Fannie, with her beautifully bronzed

foliage and monstrous truss of salmon colored flowers, is a gem. Geraniums delight in the sunshine, fair dirt and a moderate supply of water. They require to spread themselves to get the best results from them.

Certain varieties of fuchsias are good winter bloomers, and all are excellent window plants. They are voracious feeders, however, and will not thrive upon the same dirt that geraniums will. A liberal quantity of well decayed manure must be given them. They are very fond of copperas, and some people put rusty nails in the earth they are growing in. A correspondent says, having heard of the above, she knew where there was some water standing in an iron kettle which had been in it for months till thoroughly impregnated with the iron. She put a cupful of the liquid to a pail of water and gave her plants a taste of it occasionally. She is so much pleased with the result she advises all her friends to try it.

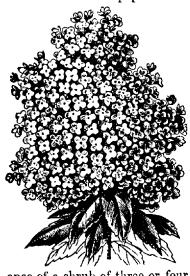
Now I have said considerable about plants which delight in the sunshine, and of course there will be some wanted for the shady places. I have yet to find a better class for the purpose than the Rex Begonias. In a log basket only fourteen inches long, I have two of them, on which the leaves are sixteen inches long, and they get absolutely no further care than abundance of water at the roots, and constant shade. Some people think it hard to grow these plants, but it is an erroneous idea. They increase and multiply very rapidly once one understands how to grow them; and flowering begonias are capital window plants, constant bloomers, easily grown and just the thing for an amateur.

The winter window garden is also much enlivened and perfumed by the hyacinth, lily of the valley and other plants which grow from bulbs, to be planted in the Fall.—Mr. RENNIE.

HYDRANGEA PARINCULATA.

This new hardy flowering shrub is offered to those members of the Association who wish to give it a trial, in the expectation from what is now known of it that it will prove to be a very gratifying addition to the number of those shrubs which are in flower in the latter part of the season. We have comparatively few which bloom after midsummer, and none which retain their flowers for such a length of time. It is said to be as hardy as a lilac, and is esteemed by cultivators as the finest addition to our list of flowering shrubs that has been made within the past twenty years. The flowers are borne in large clusters or panicles on the ends of the branches. Sometimes these panicles are nearly a foot in length and almost as broad. The flowers are white, and remain for several weeks, often changing in the end of the autumn to a pink color.

It is the custom now-a-days for newspapers and horticultural periodicals to make a present to each subscriber of some strawberry or raspberry plant or some flowering plant in order to increase the circulation of the paper. Now every subscriber to the CANADIAN



HORTICULTURIST may have one of these new Hydrangeas who desires it, and we venture to say that no paper in America is offering to its subscribers a more valuable if as valuable an article as is here offered to our subscribers.

Through the politeness of Mr. Jas. Vick, of Rochester, N.Y.,—so distinguished for his zeal in disseminating a taste for beautiful plants and flowers—we are enabled to give our readers an illustration showing the form and appearance of one of the flower panicles, though much reduced in size. From this one can imagine the appear-

ance of a shrub of three or four years growth, bearing from twenty to thirty of these panicles a foot in length.

Besides this, there is offered to every one who will remit to the Editor ten dollars with the names of ten subscribers, new or old, a copy of the Horticulturist for 1881 free, and the choice of any one of the following articles sent post paid to the person making the remittance, and to each of the subscribers whose names are sent. The following is the list of articles, any one of which that the subscriber may designate will be sent: 1, The Senasqua Grape; 2, two pounds of the Dempsey Potato; 3, Hydrangea Paninculata; 4, a one year old tree of the Wealthy Apple.

THE WEALTHY APPLE

This variety, so valuable for planting in the coldest parts of the country, originated in Minnesota from some seed of crab apples sent to Peter M. Gideon from Bangor, Maine, about the year 1861. Since that time it has been extensively disseminated, and at the meeting of

the State Horticultural Society of Minnesota, held in January, 1879, the only apples recommended for general cultivation in that State are the Duchess of Oldenburg and the Wealthy.

The fruit is of large size, nearly round; color bright red on a yellow ground; flesh white, sometimes stained with red; tender, juicy and melting; season about with the snow apple; quality very good.

The tree is a free grower and very productive. It has been introduced into northern Iowa, where the climate is very trying to apple trees, and is there pronounced to be a perfect iron-clad. Those members of our Association who live in Muskoka, Manitoba and other places where the thermometer sometimes falls to thirty and forty degrees below zero, will do well to avail themselves of the opportunity now afforded them by the Association of giving this variety a trial.

LEE'S PROLIFIC CURRANT.

Some years ago, when this currant was first brought to the attention of fruit growers, the writer imported some plants from England, since which time he has had it in cultivation; and now after fruiting it for a number of years is able to say that it is a very valuable variety, well worthy of attention from those who are in the habit of using black currants.

Representations have been made with regard to it that have not been borne out in the experience of the writer, especially such as make the bunch as long as that of the Red Dutch, and the berries very much larger than any other sort. In these respects it has not seemed to be in any marked degree in advance of the Black Naples, which has stood for some time at the head of our black currants. But as a cropper it has been the most reliable of any, yielding abundantly in all seasons, and when the plants were cultivated and generously fed, produced very large berries.

To the taste of many, the black currants are not desirable as a dessert fruit, but when cooked they are not only very palatable but a most wholesome article of diet. Made into a jelly or jam they are said to be very useful in cases of hoarseness and sore throat. Certainly it is a very agreeable prescription, and one might well be disposed to imagine a hoarseness, if that were necessary to secure an opportunity to enjoy a taste of black currant jam.

SENASQUA GRAPE.

This variety originated at Croton-point, in the State of New York, and is said to have been a seedling of the Concord fertilized with the Black Prince.

Ordinarly the bunches are of medium size, but with care in cultivation they become large to very large. They are usually quite compact, the berries are of medium size, purplish-black, juicy, sweet, and of very good quality. The vine is vigorous and said to be hardy, but how far northward it will be found to do well has not yet been ascertained. It does not ripen any earlier than the Concord, and will therefore probably be found to be too late to be valuable in those parts of the country where the season is not long enough to ripen the Concord perfectly.

The skin of the berries is as thin as that of the Concord, if not thinner, so that it sometimes cracks, which is against it as a market variety. For home use it will be found to be an excellent fruit, very handsome in appearance and of fine flavor. Some of the samples that have appeared at our exhibitions were certainly magnificent.

A WORD ABOUT NEW FRUITS.

BY A. M. SMITH, ST. CATHARINES.

While I do not advocate multiplying new varieties of fruit unless we make some improvement on those we already have, still it is necessary for some one to propagate and test new varieties in order to make any improvement at all; and while the Fruit Growers' Association and a few private individuals have brought into notice some few valuable new fruits, I think there has not been as much done in this direction as might have been. I know of dozens of new fruits that have been examined and reported upon by committees appointed by the Association, some of which I am satisfied are equal if not superior to many older ones now in cultivation, that are still in the background, and wholly unknown to the public. The most of them are in the hands of amateurs, who have hybridized and propagated them, not so much to make money as from a love of science and a desire to improve

what they have already. Among these fruits are some of the seedling grapes of Wm. H. Mills and Wm. Haskins, Hamilton, the strawberries of Chas. Arnold, Paris, the strawberries and grapes of Chas. Biggar, Drummondville, and the grapes, currants, gooseberries, &c., of P. C. Dempsey, Albury, and Wm. Saunders, London.

Last summer I had the pleasure of visiting the grounds of Mr. Saunders while his currants and gooseberries were ripe, and comparing them with some of the leading popular varieties, and I am sure if they do as well in other places as they do there some of them if they become known will take the place of varieties now in cultivation. He had two varieties of black currants growing by the side of Black Naples and Lee's Prolific, which as I saw them I should prefer to those varieties. One was a larger berry and fully as productive, the other equal in size and productiveness and much sweeter and better flavored. I also saw several seedling gooseberries, crosses between the Houghton and English varieties—some of which have been brought to the notice of the Association before—growing and ripening along side of Houghton's Seedling, Downing and others, which in size and productiveness would excel any of the old varieties, and they were apparently as free from mildew; also a very fine red seedling currant.

Now what I want to suggest, is that some means be devised totest the qualities of these fruits and bring them before the public, particularly those whose originators are too much occupied with other Could not the things, or are too modest to push them into notice. Fruit Growers' Association, now that it has experimental grounds at its command, take hold of these and test their merits, and if worthy to be sent out propagate them and allow the originators a royalty on all that were disseminated? It has been said that any man who makes two blades of grass to grow where but one grew before is a public benefactor, and why should not a man who makes two grapes or strawberries or any other kind of fruit grow where only one did before be considered as such and rewarded accordingly? The Association has in years gone by offered money prizes for new fruits which were equal or superior to standard varieties, but I would suggest that in addition to this an honary medal or testimonial of some kind should be given by the Association to any one who originates a new fruit of superior quality. I throw out these suggestions, hoping the Association or its-Directors will take some action on them at their next meeting.

SEEDLING PEACHES.

The past season has been very prolific in seedling peaches. The preceding winter was mild, hence every peach tree that was large enough to bear fruit was loaded to breaking. Samples of new sorts were received by the Editor from almost every part of the Province, many of which were very fine indeed. Some of those which came from Collingwood were of such fine size, and possessed so many points of excellence, that we are led to speak of these seedlings, for the purpose of calling attention to the importance of raising up a race of more hardy and healthy varieties, which, originating in our climate, shall be better adapted for general cultivation in Ontario than those which are now in cultivation. It has been demonstrated that if you can secure seed from a southern tree growing at its northern limit and succeed in raising plants from this seed, the seedlings thus grown will be more hardy than the parent, and better able to resist the severity of the climate. We trust that our fruit growers upon the shores of Lake Huron and of the Georgian Bay will not lose sight of this fact, but will experiment in this direction, particularly in the raising of seedling peach trees from seed ripened there, for we are confident that in a few years they will be able in this way to secure a race of hardy peach trees that will give them a crop of fruit, if not as regularly as they secure a crop of apples, yet much more regularly than they can ever hope to obtain from trees originated in a more southern climate.

AUTUMN PLANTING OF PERENNIALS.

The old fashioned garden, in which Larkspurs and Lychnis bloomed side by side with Pæonies and Prince's feather, while Canterbury Bell and Columbine elbowed each other for precedence, and old fashioned, out-of-date Honesty hung out its silvery seed pounches; and where sweet scented rosemary and bergamot and southernwood were'nt ashamed to flourish rampartly, has given place to the mania for bedding plants and formal arrangements of geraniums and pelargoniums and coleii, and to stately Caladiums and Marantas. But in one of these old gardens in which plants were jumbled together in charming confusion and delightful profusion, every step was a surprise, and a tour of inspection a perfect voyage of discovery, in which were brought to light whole continents of bloom. Here a trailing branch of Honeysuckle, dew laden, swept your face; there a wanton sweet brier clutched you with many thorns. Here is a plant whose presence was

unexpected, its growth being concealed by more aspiring neighbors, still it asserts itself, as modest merit does at times, by hanging out a dainty spray of buds and perfected blossoms; there is a regal blossom that two days ago was a tiny, twisted, convoluted bud, that did not act as if it meant to show itself for a fortnight. I have in mind such a garden now, in which York and Lancaster roses stood side by side as the rival factions never did in old England; where Damask roses sent a shower of perfumed petals over a carpet of "Creeping Charlie" and stone crop; where a purple Morning Glory twisted itself round a convenient Hollyhock and dangled its bells from its very top. It was a garden of delight, of unlimited boquets, of happy luxuriance and never ending variety.

But though not all homes can be beautified with so lovely and luxuriant a garden, there are none which cannot afford a few flowers, and to these the hardy perennials will prove more desirable than an attempt at the bedding out system, in which plants must be judiciously arranged with reference to height and color to be effective. Then, too, bedding plants require an outlay of time, trouble and expense which perrenials do not.

There are very few farm houses about which there is not some unsightly view which might be hidden by judicious planting of shrubbery. There are very many ornamental shrubs which may be purchased for the purpose at a nurseryman's if one has means, but our common lilacs and snowballs will answer every purpose. Against these, as a background, may be arranged perrenial plants in a manner which will be very effective. Holly-hocks, the double varieties being best, herbaceous Phloxes and the perennial Larkspurs, which often attain a height of four feet, look well against a background of verdure. The old fashioned Tiger Lilies and Crown Imperials also deserve a place. Where more space can be given and some attention paid to their growth, greater things may be attempted.

At this season of the year roots of perrenials may be set out with good hope of surviving the winter and making free growth in the spring. One merit, and it is no slight one, of this class of plants consists in the fact that they are always on hand. Once established they go on increasing and growing better every year with no care except to see that weeds do not choke their growth, and to supply them with a little fine manure. the most deserving of such flowers we may name, in addition to those already mentioned, Pentstemon, a tall stately plant, whose tubular flowers of scarlet, blue and white grow in panicles; Poppies, whose orange and scarlet blossoms, though not very enduring, are very showy and fine among shrubbery; Pæonies, the deep, blood-red variety being especially beautiful against a green background; Columbines, with horns of honey; the Foxglove, with her purple hood; Sweet William, which is now so much improved that it is hardly the same flower, with its splendid trusses of velvety bloom; Pyrethrums, which are as desirable as fine Asters; Sweet Rocket and wall flowers. Then, too, we have Pinks, both Japan and Chinese, which are perfectly hardy and are never done blooming; Pansies and Daisies; all varieties of hardy Lilies and Roses, which make the garden a bower of beauty in June; the Flowering Almond, "April's gift to April's bees;" indeed, the difficulty is not in the variety, but in making a choice

among so many. Among climbers there is the Woodbine, so universally a favorite, the varieties of Honeysuckle, the Trumpet Vine and Climbing Bittersweet, and the Perennial Pea, the

"wanton witch In so much haste to wed, She clasps her rings on every hand."

In planting out hardy perennials there should be no definite pattern or plan; everything like formality should be avoided. The beds should be thoroughly prepared at the outset that the roots may remain undisturbed as long as possible and still be able to find plenty of food in the soil Especially avoid crowding, remembering always that the slips of seedlings which look so small and at such a distance from each other will develop into clumps and masses of most decided proportions. Do not set them in an unvarying straight line if they must grow in a narrow border, but break the regularity and monotony as much as possible. Annuals, and bedding and "carpet" plants may be used to fill up vacant spaces with the best possible result. A single verbena may flourish and extend itself as only verbenas will between two tall plants, a carpet of stonecrop may spread itself somewhere else in the same way, a fringe of blue Lobelia may creep about the roots of another, and the sun-loving Portulacca may border the walk. A Scarlet Runner Bean may be allowed to climb the stalk of a Sunflower, thus furnishing a combination quite in accordance with the popular idea of harmony of color, while the Cypress Vine may garland the surrounding shrubs with its fine light green foliage.

Seeds of many varieties of annuals are advantageously planted in the autumn, among which are Candytuft, Petunias, Annual Poppies the Rocket

and Larkspurs, Clarkia, Snap Dragon, Sweet Alyssum and others.

To the lovers of flowers these autumn days are grand opportunities for preparing for an abundance of blossoms next spring. Very soon, too, tender plants which are to spend the winter under the snow should be provided with a blanket of fallen leaves, coarse litter or straw, which must be held in place by bits of boards to prevent December's gentle zephyrs from scattering it.—Michigan Farmer.

WHITE HOUSE WHITEWASH.

Take half a bushel unslacked lime and slack it with boiling water; cover during process to keep in the steam, Strain the liquid through a fine sieve or strainer. Now add a peck of salt previously dissolved in warm water, three pounds of ground rice boiled to a paste, half pound powdered Spanish whiting, and one pound clear glue soaked well and melted. Add five gallons of hot water to this mixture; stir it well, and then let it stand for a few days covered from dust. The mixture to be put on hot.—Alex. Lindsay.