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J Lowe

DECEMBER.

The  
**CANADIAN + HORTICULTURIST.**

PUBLISHED BY

**THE FRUIT GROWERS' ASSOCIATION,  
OF ONTARIO.**

—  
D. W. BEADLE, Editor.

ST. CATHARINES. - - - ONTARIO.

No. 12.

—  
**1884**


—  
Vol. VII.



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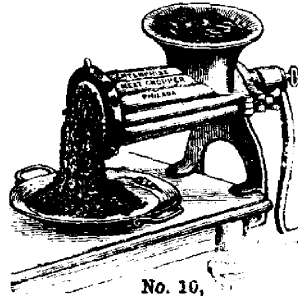
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THE  
**Canadian Horticulturist.**

VOL. VII.]

DECEMBER, 1884.

[No. 12.

THE NIAGARA GRAPE.

It is now almost five years since we called the attention of readers of the *Canadian Horticulturist* to this grape. In the January number of the third volume, 1880, we gave the history of its origin, and such information concerning its characteristics as we had been able to gather from our own limited observation and the testimony then obtainable. Since then vines of this grape have been greatly multiplied by propagation, and sold under stringent restrictions, which prevented the purchaser from propagating it himself, or disposing of cuttings or plants to any one else than the company from whom the purchase was made. Nor was it possible even under such restrictions to obtain one or two vines; only those who purchased largely for vineyard purposes could get them.

The public were this fall taken greatly by surprise to learn that vines could now be procured in small quantities through any of our nurserymen and dealers in grape vines, to be delivered in the spring of 1885, without any restriction whatever. We are not in possession of the reasons which have induced the proprietors thus suddenly to throw open the grape to the public;

but, whatever these may be, it is of little consequence so long as purchasers can obtain the vines for their small graperies without being burdened with special stipulations.

We have no experience with the Niagara grape that we can give our readers. Not being growers of grapes for market, we had no occasion to plant a vineyard of Niagaras, and, being excluded by the policy of the company from purchasing a small number, have never become the owner or possessor of one of the vines. The only information we can give is solely from the testimony of others. Some vineyards of this variety have been planted in Ontario, mostly, we believe, in the vicinity of Grimsby. There is one also as far northward as Lindsay, in the County of Victoria; the property of Mr. Thos. Beall, one of the Directors of the Fruit Growers' Association. Some of these vineyards produced some fruit this past autumn, probably their first bearing season. Mr. Beall's opinion may be gathered from what he says of it in the October number of the current volume, page 232.

From all that we can gather it seems certain that the Niagara will ripen its

fruit well in a large part of Ontario, coming to maturity earlier than the Concord. The size both of bunch and berry should satisfy those who value grapes in proportion to their size, which is the case with many purchasers of fruit.

The colored illustration in this number, for which we are indebted to the Niagara Grape Company, will give our readers a much better idea of the handsome, showy appearance of a well-grown bunch than any description. As to flavor and quality it will exactly suit those who relish considerable muskiness or native aroma. It is sweet and rich. Like most of our native grapes of the labrusca family, it is at its best when it is first ripe; keeping does not improve the flavor, but on the contrary injures its sprightliness.

It seems also that it is very productive. We have seen it stated that 580 vines of the Niagara grape planted in the spring of 1879 yielded in 1882, by actual weight, 7,692 pounds of grapes. Thirteen pounds of grapes to the vine on an average is a very satisfactory crop.

We believe that this grape is well worthy of trial, and that it will give very general satisfaction. We shall plant a few vines of it, and, if spared to see its performances, shall inform the readers of the *Canadian Horticulturist* of its adaptation to this locality. Meanwhile it is to be hoped very many will test it for themselves and give our readers their experience, so that the question of its suitability for general cultivation in Ontario may be fully settled.

#### THE END OF THE YEAR.

How fast the months go by! It seems but yesterday that we tendered to the readers of the *Canadian Horticulturist* our New Year greetings. To-day we hand you the last number for the year. Our endeavor to give you from month to month the latest tidings of the horticultural world, coupled with such suggestions as the experience of cultivators could furnish, is before you. The kind expressions of satisfaction received from many, tell us that our endeavor has not been wholly in vain. We wish that these monthly issues had been more full of useful matter, and feel almost constrained to promise that they shall be in the future. But it is not the privilege of any one man to possess all the knowledge there is even on horticultural matters. If our readers would only write more fully of their experience for publication in their journal, then we could promise, most certainly, that your monthly shall be much more interesting during the year to come than it ever has been. Will you not have the kindness to give to others the benefit of your experience? It may not seem to you to be worth much, but it may be just what will help some one who is growing discouraged in his work. To you these experiences may seem as footprints in the sand, and yet shall be

“Footprints, that perhaps another,  
Sailing o'er life's solemn main,  
A forlorn and shipwrecked brother,  
Seeing, shall take heart again.”

One new feature for the coming year has been very kindly promised by Mr.



Spotton, of Barrie, and one that we are confident will be received with no ordinary pleasure by many of our readers. Mr. Spotton is most favorably known as a writer on Canadian botany, and we are confident that the papers he will furnish will be read with avidity by every one who desires to become acquainted with our wild wood plants and flowers. We intend that they shall be sufficiently illustrated to make them easily intelligible to the youngest reader. These papers will constitute a series of popular instruction in elementary botany, illustrated wholly by reference to Canadian plants. It is too true that our young people are very largely growing up in ignorance of the correct names and natural affinities of our most common wayside flowers. It seems to us that some of the time now spent in our common schools on arithmetical conundrums might be better employed in the study of the forms of life with which we are surrounded, but as such matters are beyond our reach, we commend the forthcoming papers from Mr. Spotton to the attention of all, and especially of our younger readers.

The Directors of the Association by whom the *Canadian Horticulturist* is published, have decided that the subscription book be thrown aside at the end of the year, consequently old subscribers will kindly renew their subscription during this month if they wish to receive the magazine for 1885. If any numbers for the past year have not been received, they can be supplied on application. Subscribers for the

coming year will be entitled to receive a copy of the Annual Report of the Fruit Growers' Association of Ontario, for the year 1884, now in course of preparation. They will be also entitled to receive whichever one of the following articles they may ask for, on remitting their subscription, viz :

A Yearling Tree of a Russian Apple ; or,  
A Yearling Tree of the hardy Catalpa ; or,  
A Yearling Plant of Fay's Prolific Currant ; or,

A Tuber of a Choice Double Dahlia ; or,  
Three papers of Flower Seeds, one each of the Diadem Pink, Salpiglossis and Striped Petunia.

These will all be securely packed and sent by mail, post paid, to each subscriber, according as he may designate.

If you think that the *Canadian Horticulturist* is worthy of support, that the information published is of value, will you not interest your neighbors in our magazine and send their subscriptions with your own ? The usefulness of such a magazine is increased as its circulation is enlarged. It is not published for profit. Every dollar is expended in the appropriate work of the Association, namely : in collecting and disseminating information. You are requested to help in making this information more widely known. Will you not encourage and sustain the Directors, upon whom the care and responsibility rests, by your sympathy and active co-operation.

We find that Tent Caterpillars are killed by the Buhach (pyrethrum) powder, blown through bellows. It is an easy method of application, while no injury results to either leaves or branches.  
—*Rural New Yorker.*

### MEETING OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

The Winter Meeting of the Fruit Growers' Association of Ontario will be held in London on Wednesday and Thursday, the 28th and 29th January next, in Victoria Hall, Clarence Street. The opening session will begin at 10 a.m. on Wednesday. Delegates from Michigan and New York are expected to be present.

#### PROGRAMME.

*Wednesday, January 28th.*

#### MORNING SESSION.

Address of welcome by the Mayor.

Reply by the President.

Discussion on new varieties of Apples.

Best varieties of Green Peas—methods of cultivation.

#### AFTERNOON SESSION.

##### QUESTION BOX.

What varieties of Winter Apples are most profitable.

Best markets for Winter Apples, and best methods of packing for foreign shipment.

Plums, most esteemed varieties, soil and cultivation.

#### EVENING SESSION.

##### QUESTION BOX.

Grapes, best varieties in cultivation, suited to Western Ontario.

Roses, best and freest bloomers, soil, culture, &c.

*Thursday, January 29th.*

#### MORNING SESSION.

##### QUESTION BOX.

Best varieties of Potato, and modes of cultivation.

Cauliflower, best varieties of.

What Gooseberries are most esteemed; methods of cultivation and pruning; soil best adapted to their growth.

#### AFTERNOON SESSION.

##### QUESTION BOX.

Best hardy Perennial Flowers for the garden.

Red Currants, most profitable sorts, their cultivation and treatment.

Black Currants, best varieties.

#### EVENING SESSION.

##### QUESTION BOX.

This closing session will be mainly devoted to short addresses on different subjects by members of the Association and visiting delegates, embracing among others the following topics:— Best Trees for Ornamental Planting; Dahlias; The Management of Bees; Forestry; Best varieties of Clematis, with Methods of Cultivation. Good music will be rendered at intervals.

As this promises to be a very important and interesting meeting, it is earnestly hoped that a large number of our members from a distance will make it a point to be present.

#### THE SIXTH ANNUAL MEETING

Of the Mississippi Valley Horticultural Society will be held in the City of New Orleans, commencing January 14th, 1885, and continuing four days. Liberal rail-road rates are offered, and already special excursions, both by boat and rail, are being organized. This meeting will be held during the World's Industrial Exposition, and in connection with the greatest display of horticultural products ever made. For full particulars, programme, &c., apply to the Secretary, W. H. Ragan, Greencastle, Indiana.

#### AMERICAN APPLES IN LONDON, ENGLAND.

Baldwin's were sold in the London, England, market at 14s. sterling to 14s. 6d., Greenings at 15s., Russets at 13s., and Northern Spys at 16s., this fall.

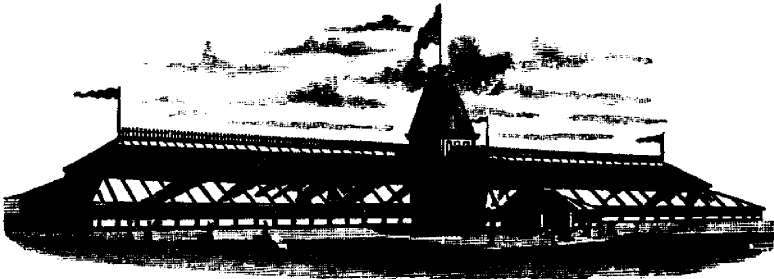
### THE NEW ORLEANS EXPOSITION.

The horticultural department of this great exposition has been placed under the superintendence of the widely known, and much esteemed horticulturist, Mr. Parker Earl, whose indefatigable industry in behalf of this department has already secured for it the most extensive exhibits in its various branches that have ever been collected on this continent

The horticultural group has been divided into the following classes :

1. Ornamental Trees, Shrubs and Flowers.
2. Conservatories, and their Management:
3. Implements and Accessories.
4. Garden Designing and Construction.
5. Vegetables.
6. Fruit and Fruit Trees.
7. Seeds and Saplings of Forest Trees.
8. Gardens for Dwellings.

We give below a cut and description of



THE HORTICULTURAL HALL.

The Horticultural Hall is 600 feet in length and 194 feet wide through its centre. It is the largest conservatory in the world. It is substantially built as a durable structure, becoming by arrangement with the city a permanent feature of the Park. It is located on high ground in the midst of live oak groves. Surmounting the centre is a magnificent tower, 90 feet high, roofed with glass. Beneath this tower, in constant play, is a grand fountain. 20,000 plates of fruit, double the amount ever before displayed at any exposition, will be shown on tables extending through the hall. Around the hall will be arranged an infinite variety of rare tropical and semi-tropical plants, flowers and shrubbery. There is a tropical hothouse, 250 feet long by 25 feet wide, in which the most delicate flowers from the far South will be nurtured and made to bloom in their most brilliant perfection. Tropical fruits in their various stages of growth will be exhibited. Fruits of every section and productions of all seasons, will, by arrangements for stated supplies and thorough processes of cold storage, be available for exhibit.

The most eminent horticulturists of the United States are engaged in arranging and perfecting the display. Cash premiums to the amount of \$32,000 are offered in this

department, and contributions to its exhibits from Mexico, Central America, the West Indies and the different States of the Union will be unprecedentedly large and varied.

May we not also add our own Province of Ontario to the list of contributors? Full information as to prizes, transportation, placing on exhibition, &c., can be had on application to any of the Directors of the Fruit Growers' Association of Ontario.

Doubtless many will visit this Exposition from Ontario. To intending visitors we may say that in order to prevent visitors to the World's Fair from being over-charged, the Exposition management will make a thorough canvass of New Orleans, and enter in a book the names of all persons who desire to keep lodgers or boarders during the season. Any person charging more than the advertised rate will have his name struck from the Exposition register. This service will be entirely free.

## NOVA SCOTIA APPLES

Were sold in London, England, this fall at good prices. Ribston Pippin, brought from 17s. sterling to 25s. 6d., Blenheim Orange 17s. 6d. to 20s., King of Tompkins 20s., Gravenstein 15s. to 18s. Buyers were well satisfied with the quality and condition, and the demand at the above prices was brisk.

## QUESTION DRAWER.

MR. EDITOR,—Is there such a nursery in Toronto as the Dominion Nurseries? If so, who is the proprietor?

Shedd and Parks claim to be the general agents of that nursery in the State of Indiana. Your early reply will oblige,

S. J. M.

Auburn, Indiana.

REPLY.—We do not know any such nursery. Will our Toronto readers please enlighten us.

1. Is it advisable to lay down hardy grape vines in winter?

2. Is wire preferable to wood for trellis, and how high should trellis be made?

3. Name six or eight best varieties for our locality, soil a clay loam.

H. BODWELL.

Mt. Elgin, 17th Nov., 1884.

REPLY.—1. It is advisable to lay them down. 2. No, it is purely a question of convenience and economy. 3. Agawam, Brighton, Concord, Delaware, Early Victor, Jessica, Lindley, Wilder.

## RUSSIAN MULBERRY.

MR. EDITOR,—Will you have the kindness to give the readers of the *Horticulturist* some information with reference to the pruning of the Russian Mulberry? I find the habit of the young plant is to throw up several shoots from the root. In transplanting to where destined to remain, would you or would you not recommend the training up of a single stem to form a trunk for the tree?

Respectfully yours,

J. KNOWLTON.

REPLY.—It should be trained to a single stem.

## CORRESPONDENCE.

## REPORT ON FRUIT.

UNION EXHIBITION, COBOURG, OCTOBER 14TH AND 15TH.

On arriving at the Fair grounds on the 14th, I found the Directors in session, filling up vacancies in and arranging the Judges lists. I was requested to act as one of the judges on fruit. The other two judges were found immediately. We went to work at once, and none too soon, for on arriving at the hall we found a very large display of fruit, the judging of which kept us busily employed until evening.

The next morning I waited until my patience was exhausted for friend Dempsey (who had promised to assist me), and then went to work alone and took notes to enable me to furnish the following particulars respecting this really excellent fruit exhibition:—

Twelve varieties of apples, four of each named. The first prize lot consisted of twelve varieties only, all excellent specimens, and all named correctly. The second prize lot consisted of twenty-three varieties, containing many good specimens, but a larger number of in-

ferior ones, and several of the varieties were mis-named. The third prize lot consisted of fifteen varieties, some of which were mis-named, and nearly all lacked in color. The fourth lot consisted of thirty varieties. There was not more than four or five fair specimens in this exhibit. All the others were inferior in quality, and many of them improperly named.

Snow, fourteen exhibits, and all of prime quality.

St. Lawrence, eight exhibits. These were all of extraordinary size and most beautifully colored.

Holland Pippin, seven exhibits. Very good samples.

Maidens' Blush, three exhibits. It would be difficult to find anywhere two plates of such beautiful specimens of this variety as those obtaining the first and second prizes. The third lot exhibited as Maidens' Blush had the same delicate coloring, and in addition had numerous black specks over the whole surface. Below medium. Conical.

Other varieties Fall Apples, ten exhibits. All splendid samples. The first prize had been awarded to a plate of well grown Gravensteins.

E. Spitzenburg, five exhibits. All good samples, with one exception, which was badly spotted.

Baldwin, eight exhibits. All very fine.

R. I. Greening, eight exhibits. All extra good, but one plate, which were not Greenings.

Northern Spy, nine exhibits. All beautiful specimens.

Russets (without distinctive appellation), ten exhibits. All good samples. Prizes given to the largest.

Other varieties Winter Apples, eight exhibits. All well grown and perfect samples.

Crab Apples. All Hyslops, and, as usual, all alike.

Collection of Pears, three of each, named. The first prize was awarded to an exhibit consisting of the following twenty-one varieties:—Souvenir du Congrès, Flemish Beauty, Louise Bonne de Jersey, Josephine de Malines, Bartlett, Beurre Bosc, Beurre Gris d'Hiver, Winter Nelis, Huguenot, Buffam, Duchesse d'Angouleme, Belle Lucrative, Dr. Reeder, Seckle, Howell, Kingsessing, Lawrence, Vicar of Winkfield, Beurre Clairgeau, White Doyenne, and Beurre d'Anjou. The second prize lot contained the following varieties in addition to some of those named above, viz.:—Prevost, Blanc-per-ne and Graslín.

Collection four varieties, three of each, named. First prize to Graslín, Belle Lucrative, Flemish Beauty and Beurre Clairgeau. Second prize to Beurre Clairgeau, Vicar of Winkfield, Duchesse d'Angouleme and Howell. All of the foregoing were excellent samples.

Flemish Beauty, six exhibits, four of which were well grown.

Duchesse d'Angouleme, four exhibits. Moderate.

Louise Bonne de Jersey, two exhibits. Both inferior.

For the prizes for Fall and Winter Pears there were twelve exhibits, all well grown, but no variety different from those already mentioned.

Grapes, six clusters, open air, three exhibits. Two of which were very fine. The first prize was awarded to a lot containing seventeen varieties as follows:—Lindley, Clinton, Delaware, Champion, Martha, Hartford Prolific, Agawan, Creveling, Early Dawn, Diana, Ives' Seedling, Salem, Concord, Iona, Brighton, Israella and Rogers' No. 4.

Special prizes of five dollars each had been offered for the best barrel of Northern Spy and of Ribston Pippins.

The prize apples to become the property of the person offering the prize in each case. This prize was well contested, there being four or five barrels competing for each. One of the competing barrels for the Ribston Pippin prize was not of that variety.

All the in-door portion of this Exhibition was well conducted, and reflected much credit on the Managing Directors.

Respectfully submitted,

THOS. BEALL.

Lindsay, Nov. 1st, 1864.

#### SHEPHERDIA ARGENTEA.

DEAR SIR,—Thanks for the *Canadian Horticulturist*, Nos. 9 and 10, now received. Some time ago I received a letter from you, asking about the locality of the *Shepherdia argentea* or Buffalo berry. Ever since 1876, I have been looking for it, and never found it until this season. As far as I have observed it finds its eastern limit about Walhalla, on the steep banks of the Pembina River. It is spoken of as the future hedge shrub of the North-West. Its narrow silvery leaves and edible, acid scarlet fruit (like red currants), mark it as a tree or shrub worthy of introduction into the ornamental grounds of Canada and the Eastern States. Its sweet scented flowers (if like the *S. Elæagnus argentea*) and scarlet berries make it an object of interest in grounds, borders or hedges. It abounds here and on the Upper Missouri, and has been introduced into Minnesota. It attains quite a size in the ravines of the Yellow Stone. Prof. Macouin speaks of the berries as the most suitable for preserves of all the small fruits of the North-West. Its long, sharp, partly concealed spikes, make it a terror to beasts of all kinds. The Buffalo berry, its common name, is a contrast to its near relative the Silver berry. The fruit of the one is small,

the other large; the one scarlet, the other white and silvery; the one strongly acid, the other a mealy sweet. The contrast is as great as between the fruit of the Pembina berry (*Viburnum Opulus*, Cranberry tree) and the Sheepberry (*Viburnum Lentago*), both very common on the banks of the Pembina River. The town of Pembina on the Red River gets its name from the *V. Lentago*.

One of the most abundant berries here is the *Amelanchier Canadensis* (Shadbush, June berry or Service berry), the famous Satcatoom of the Indians. It extends from the Red to the Peace River, and is universally eaten by bears, half breeds, Indians and settlers. It is said to be the healthiest berry in use in Dakota. It has marked medicinal qualities. On the Laurentian Range, in the back woods of Canada, they are used for pies by the settlers, under the name of "Sugar Plums." In Canada I never saw them in such quantities as out here.

I enclose for you seeds of the *Amorpha canescens* (Lead Plant), and *Petalostemon violaceum* (Prairie Clover), both perennial herbs, and distinctly marked in dry parts of Western prairies.

If you wish I can send you seeds of *Shepherdias* mentioned above.

Ever truly,

JOHN SCOTT,

Presbyterian Missionary,  
Formerly of Emerson, Manitoba.

Walhalla, Dakota, U.S.,  
Oct. 31st. 1864.

The Editor gratefully acknowledges the receipt of the seeds enclosed, and would be greatly obliged to our correspondent if he would not only send us some seeds of *S. argentea*, but express to us in the Spring at our expense some of the plants.

## REPORT ON PLANTS RECEIVED.

MR. EDITOR,—I will try and report on the plants, &c., I received from the Fruit Growers' Association. First year, 1881, received one pound of the D'empsey potato; planted in strong clay loam, well manured; yield, thirty-seven pounds. Second year, ploughed them into clover sod, well manured; result, more than half the sets rotted; dug only three pecks of sound potatoes. The mistake was that it being a wet season they should have been planted on top. Third year, ploughed them into sod on sandy soil, without manure, but top-dressed with ashes. I got nice clean potatoes; they are not so mealy as the Rose; the flavour is much stronger and the yield is no better than the Late Rose, and not so good as the Elephant.

The Moore's Early grape vine I received grew well and was hardy; but in moving I had to leave it, so that I cannot say more about it.

In 1883 I received one plant of Niagara raspberry; it sent up one small shoot; it bore some fruit; the flavour is good; must give it another trial.

If this report is of any service you may publish it.

Your humble servant,

WM. COPELAND.

Hespeler, Ont.

## CODLIN MOTH.

DEAR SIR,—I have tried the Paris Green remedy for the apple worm with good effect. The experiment was tried on a Grimes Golden when the apples were the size of small peas. I sprayed the tree with two teaspoonfuls of Paris Green to one pailful of water. The tree for its size bore a heavy crop, about six bushels.

The experiment proved most satisfactory. I only detected eight apples that were bored. Other years fully

one-half would be bored, being worse than any other tree I have.

Could you give information through the *Horticulturist* where a suitable syringe can be got for a large orchard?

Yours, &c.,

JOHN McLEAN.

Owen Sound, Nov., 1884.

REPLY.—See p. 15 of this volume.

## HYDRANGEA PANICULATA GRANDIFLORA.

DEAR SIR,—In answer to the enquiry as to the hardiness of the *Hydrangea paniculata grandiflora*, I beg to say that there is little doubt but that it will prove hardy in all parts of Ontario. I have had a bed of it planted out for the past three years without any protection whatever, and every fall it is a mass of bloom. To have it in perfection it should be liberally fed; plenty of rotten stable yard manure dug in will cause it to throw up strong shoots, and the stronger the growth the finer and larger the panicle of flowers will be.

With me it ripens up its wood perfectly, and dont seem to have suffered any from last winter's cold, although the mercury touched 40 below zero. Any plant that will stand the arid climate of the Guelph district, will, I am confident, stand anywhere in Ontario.

Yours truly,

JAMES GOLDIE.

Guelph, Oct. 23rd, 1884.

## WEST SIMCOE FRUITS.

I visited the West Simcoe Agricultural Show held in Barrie, and was kindly permitted to examine the fruits previous to the opening of the hall to the public. The show was, without exception, the best ever held in Barrie. The fruits, to which I paid more particular attention, were very fine. The Duchess of Oldenburgh, the St. Lawrence, and also the Alexander, were all

splendid specimens in the Autumn class. The Wealthy, shown by Mr. A. Hood, of Barrie, were fine fruit. The Duchess, St. Lawrence and Alexanders were considered to be superior to those shown at the Exhibition in Toronto. A fine display of Pippins, Snows, Rhode Island Greening, American Golden Russet, Maiden's Blush, King of Tompkins, Baldwins, Northern Spy, Colverts, Bellflowers, Kentish Fill Basket. Also the collections of fruits were very creditable indeed. The Crab Apples were good, especially Byers Beauty, which excelled in quality and appearance. The Pears, the Flemish Beauty, were large and good, although they were scarce, as there were only three or four lots on exhibition. The grapes shown by Mr. Edwin Crompton would be difficult to excel, they were grown under glass; Hamburgh Muscat and White Chasselas, and some others. The open air Grapes were Agawam, (Rogers' No. 15), Salem (No. 22,) and Delaware varieties. They were all that were worthy of notice.

Yours truly,

CHARLES HICKLING.

Barrie, Oct. 23th, 1884.

DEUTZIA CRENATA, FLORE PLENO.  
(For the Canadian Horticulturist.)

For the information of those who have planted the Deutzia Crenata, I will give my experience with it, after growing it for some seven years in the County of Middlesex. When in blossom it is a beautiful shrub, well represented in the colored plate in the November number. It is a good grower, requiring no extra care in its cultivation, but it is not sufficiently hardy to withstand the severity of winter in this section unprotected; yet it is so nearly hardy that a very slight protection is sufficient. For when unprotected the tops would be killed, but it then sprung up from the roots as

vigorous as ever. As the branches grow slender, something like a willow, I simply bend them down as close to the earth as I can, and cover them with straw and a little earth. Treated thus they come out alive and healthy in Spring, and in June they are literally covered with blossoms.

JOHN M. McAINSH.

Nissouri, Middlesex, Ont.

FIELD MICE.

DEAR SIR,—I beg to state for the information of all concerned, that common bitter aloes, dissolved in boiling water, applied when cold with a paint brush from the surface as high as the snow is likely to be, shaking some from the brush on the surface soil around the trees, if there is any withered grass near them, I have found a *sure remedy* for field mice. There was not a solitary tree of 200 that was injured by field mice; and this I accomplished in one day, leaving the city by morning train for St. Mary's, and returning by last train.

Yours respectfully,

JAMES LOGAN.

London, Nov. 12, 1884.

P. S.—I trust this information is in time to be of some service for this winter.

J. L.

AMERICAN WONDER PEA.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

DEAR SIR,—So suitable to your sheet, and so excellent is the letter of friend Hoskin in your November number, that we think he had no need to preface it with any apology.

I feel sure most of your readers perceive it, as I did, with much interest.

Just in one item *I can't agree to differ* with him, that is, in his opinion of Bliss' American Wonder Pea. When he says he prefers Carter's Little Gem to it, he differs so much in opinion



from *the many*, I am at a loss to account for it; but as there was a great deal of spurious seed of the American Wonder in the market, I have come to the conclusion, he has fallen in with some of it. To many of our members I have given a sample of the pure thing, and have had from them very different reports from his, and have now pleasure in sending him a seeding of what I know to be the genuine article, with the request that he will give it a fair trial and us an amended report. I have tried most of the favorite kinds (Carter's Little Gem among the rest), but till I know of a better will sow no other pea than the American Wonder.

Yours sincerely,

JOHN CROIL.

Aultsville, 17th Nov., 1884.

#### FRUITS IN MANITOBA.

The list appended shows the varieties of wild fruits growing in the different counties and the number of townships reporting them. These varieties are strawberries, black and red raspberries, black and red currants, high and low bush cranberries, saskatoon berries, gooseberries, red and black cherries, red plums, hazel nuts, blueberries, grapes, whortleberries, and juneberries. Some grow in almost every township, while others are rarely reported. As a general thing, fruits of the ordinary varieties were abundant during the season, and those of the berry varieties were decidedly plentiful in all quarters. Among the varieties of fruit cultivated, the principal ones are currants, gooseberries, strawberries, apples, plums, raspberries, and crab apples. Of these, currants, gooseberries and strawberries are the most extensively grown and with the most success. Apples have been tried in a number of places, but have not been so successful, owing doubtless to the fact that the trees

have generally been selected from more southern latitudes. On this account the experiments to be made with the apples now being imported from Russia will be watched with interest. Raspberries, though not so extensively cultivated as gooseberries and strawberries, have been grown with encouraging results. Plums, grapes and crab apples do not appear so widely spread or so successfully grown. The dry weather of the early part of this season very materially affected the growth of the fruit crop.

#### SHEEP DESTROYING THE CURCULIO.

In comparing the results of orchards pastured with sheep and those pastured with hogs, the sheep have been found much the better animals for this purpose. They eat all the fallen fruit, large and small alike, and leave the ground undisturbed, while the hogs leave many of the smallest apples undevoured and root up the ground into a very rough and undesirable condition unless prevented by rings or some other taming contrivances. This is a very important consideration in pasturing a plum orchard, as every disturbance of the soil promotes the growth of suckers until the orchard becomes a thicket. Sheep should not be allowed in the orchard except during the fruit season, and should be well fed, else there is danger of their gnawing the bark from the trees and ruining the orchard.—*Farmer and Fruit Grower.*

#### THE RANCOCAS RASPBERRY.

This red raspberry, now being sent out by Wm. H. Moon, of Pennsylvania, is said by Albert Hansell, on whose farm it was first discovered, to be a chance seedling. "I found," says Jas. Hansell, "the Rancocas in a most unfavorable spot, surrounded by briars, and in every way neglected. Its vigor, size and productiveness led me to transplant it,

The bush starts late in the spring, when it branches freely, giving it the form of a miniature tree. Our farm, like many in New Jersey, has quite a number of those peculiar unproductive spots or patches, where little or nothing can be grown; but the Rancocas, when placed thereon, has pushed ahead vigorously. The first season the plants have been cultivated like any other farm crop. The second year the plantations have been plowed once, early in the spring; after that, the cultivator is run through once or twice in May, and then the plants are left to care for themselves. The plant suckers freely, and so vigorous is it that it effectually smothers the quack grass that would otherwise overrun our ground. We do not head the suckers, or even trim out the old fruiting canes during the summer; but in the fall, after the rush of work is over, we go through and cut out the old canes and thin out the suckers, leaving only sufficient for the next season's fruiting. The canes left for fruiting are then headed about two and a half feet from the ground. It is the busy man's, if not the lazy man's berry. As regards its productiveness, I have no hesitation in stating that on the same soil and with the same care, it will produce twice as many quarts per acre as the Brandywine. The bushes have never been in the least injured by the severest winter weather, and the foliage has never shown a trace of yellow, scald, or burn."

The berry is said to be large, of good quality, bright red in color, and an excellent shipper, and has never been known to winter kill.

Abner Hoopes says of this fruit; "On the first day of July I visited the farm of the Messrs. Hansell, near Beverly, N.J., and saw the new "Rancocas" raspberry growing in all its glory. I was particularly struck with the healthy foliage and vigor of the plants,

notwithstanding the dry spell they had just passed through. For size, quality, good color, firmness, and productiveness, I do not think it can be excelled. From what I saw of the cultivation, or rather non-cultivation, I think it has been justly styled the "busy man's berry," as well as the "lazy man's berry,"—*Prairie Farmer*.

#### THE PARRY STRAWBERRY.

No other class of strawberries combines probably so many desirable qualities as the strain originated by Mr. E. W. Durand, and best known by Jersey Queen, Prince of Berries, and others. To this is now added another variety, which, while it possesses all the excellent points of its parent, the Jersey Queen, has the other great merit of being perfect flowered, and therefore not requiring another kind of fertilization.

The Parry was raised in 1880 by Mr. Wm. Parry, of New Jersey, from seed of the Jersey Queen, and the following year it yielded already handsome fruit, which was awarded a premium at the Moorestown Strawberry Fair. After harvest, the unprecedented heat and drought destroyed almost every variety in the same plot except this, thus showing its hardiness, vigor, and drought-resisting powers.

The plant is a rank, vigorous grower, with clean foliage and perfect blossoms; berries, obtuse conical, very large, uniform in size and shape, bright, glossy crimson, firm, of best quality, and ripening evenly. It was originally named "Junior Queen," but at the suggestion of the Hon. Marshall P. Wilder, it was changed to "Parry," under which name it is now introduced.

Mr. Durand, the originator of the Jersey Queen, after growing it on light and heavy soils, considers it the most valuable strawberry that has yet appeared before the public.—*American Garden*.

## THE BEST VEGETABLES.

N. Y. AGRICULTURAL EXPERIMENT STATION.

Among the most frequent of the questions asked by visitors, in looking over our vegetable garden, is, "Which is the best variety?" Now, best is a word which covers many diverse qualities, as those peculiar qualities which render a vegetable the best for the kitchen garden are often quite different from those which would recommend it to the market gardener. For example, take the pea: in the kitchen garden we desire a variety that matures its crop gradually, and which furnishes its crop in frequent pickings. In the market garden, on the other hand, it is very desirable to have a variety mature its crop at once, so that the vines may be quickly removed to give place to other crops.

In this Bulletin, therefore, we offer a list of varieties suitable for the farm garden, as gained from our experience.

Commencing with lettuce; a variety which becomes early fit for use, is slow in running to seed, which retains its tenderness and sweetness well, and forms a large and compact head, is the Large White Stone Summer. Quite a number of other varieties combine these qualities in scarcely less degree, such as All the Year Round, White Chavigny, and The Deacon. With those who like novelty, the Prize Head, which is curled and tinged with red, The Marvel, of a rich, deep, glossy red, and the Golden Spotted, will find admirers.

In the pea, we would recommend for first early, one of the popular "First and Best" strains. The old Philadelphia, Kentish Invicta, or Daniel O'Rourke, will often prove nearly or quite as early. These are all smooth peas, and though excellent for a beginning, should soon give place to the wrinkled sorts, first of which we would name The American Wonder. Follow-

ing this, a number of varieties may be recommended, all of which are of acknowledged excellence. The Champion of England, as an intermediate pea, is scarcely excelled in quality and productiveness, though it requires bushing, which with some is an objection. Among the excellent dwarf intermediates we may name Pride of the Market, Stratagem, Market Garden, and Hair's Dwarf Green Marrow. These are sufficiently dwarf to succeed pretty well without bushing, though it is better to bush when convenient to do so. For a late pea, McLean's Premier, although a tall variety, possesses the important quality of yielding its crop very slowly. Last season it continued to yield peas fit for the table for thirty-three days in succession, in which respect it was surpassed by no other variety tested.

In beets, we name the Egyptian for both early and late use. It is very early, excellent in quality, productive, and keeps well.

In carrots, the French Forcing seems desirable for early use, and the "half-long" sorts, or the Long Orange may be named for late or winter use.

Among parsnips there is little choice. To those who desire to use this vegetable during the autumn months, the Turnip-rooted is recommended, but for spring use the Hollow Crown is in season.

Among turnips, the Purple Top Strapleaf and Jersey Navet have proved excellent for autumn or for early winter use; for late winter or spring use the White or the Bloomsdale Ruta-Baga. We mention these varieties because they are nearly or quite free from the strong bitter flavor, characteristic of so many turnips and ruta-bagas.

In onions we would recommend onion sets for early crop. Among the earliest varieties that may be grown from seed,

we would mention Well's Extra Early, and Extra Early Red. To those who desire a very mild onion, we recommend the White Portugal, a variety that is productive and keeps well. The Red Wethersfield and Yellow Danvers are productive and of excellent keeping quality, but the former is a little strong flavored.

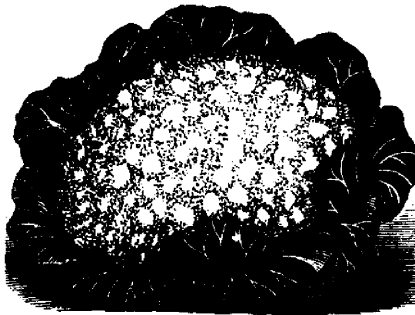
In cabbage we name Early Wakefield, Nonpareil, and Early Oxheart for



EARLY WAKEFIELD.

earliness. Winnigstadt and Schweinfurth for intermediate, and Premium Flat Dutch for late and for winter use.

Of cauliflowers, Erfurt Early Dwarf seems the best for early use, and the



EARLY DWARF ERFURT.

Imperial Large White French and Le Normand's Short Stemmed for late.

Of tomatoes, the Alpha gave the earliest supply for the table last season. Livingston's Favorite is very smooth

and of excellent quality. The Mayflower may be also mentioned, and it



MAYFLOWER.

would be difficult to decide between these in point of quality.

In squashes we have found the Per-



PERFECT GEM.

fect Gem and Canada Crookneck very hardy, productive, and of easy growth;

the former keeps well, and when fully ripe, is an excellent squash, but the Hubbard, Butman, and Essex Hybrid would be preferable to either of these, were they not so liable to be destroyed by the borer.

In celery we have as yet tested no variety which we would prefer to the Boston Market.

Of cucumbers, Tailby's Hybrid has proved reliable, and is of excellent quality. Early Russian and Early Cluster are excellent early varieties, and the White Spine may be named for a later use.

The Christiana melon, among musk melons, is an excellent one; a reliable bearer, and the hardiest of any that we have tried. Of water melons, Vick's Early has proved as satisfactory as any we have grown.

Of radishes, the Early Long Scarlet, and the Early Scarlet Turnip-rooted are excellent for early use, and the Dayton and Golden Globe for late use.

E. LEWIS STURTEVANT, *Director.*

#### NOTES ON ORNAMENTAL PLANTING.

The judicious and tasteful planting of fruit and ornamental trees enhances the value of real estate more than an equal amount of money invested in any other way. It is not necessary to have a large extent of idle land in lawn or dooryard, or expensive drives and fancy walks, in order to give a country place an attractive appearance. A plain neat yard, with a few trees and shrubs well selected and judiciously planted about the grounds, and properly kept, would often change the appearance of many a place from a neglected wilderness to that of a thrifty, comfortable home. It is not desirable to have an elaborate design to produce the best effect in small places. To give explicit rules for landscape gardening of universal applicability for amateurs to work by,

would be impossible, but I offer the following suggestions, which may aid in perfecting a plan.

Most persons who have any fondness for trees or plants, when they once get started in horticultural operations, become much interested. The great secrets of success in amateur landscape gardening are, first, to become interested, then to look and study and plan and contrive. A little ingenuity is also desirable, but it is not half so formidable or expensive an undertaking to lay out the grounds and plant a small lawn as many persons imagine.

Plant a few shade trees near the house, about ten feet from it, on the south and west sides, to screen it from the mid-day and afternoon sun. These should be rapid growers, as silver maple or Carolina or balsam poplar. If these trees are planted about ten or fifteen feet from the house, they will give a very appreciable shade in three or four years, but they are not the most ornamental or desirable for permanent trees. Rapid growth is their recommendation, and they will be too close to the house to remain many years; therefore, plant some finer varieties about twenty-five or thirty feet off. For this, there are nothing better than sugar maple, Norway maple, horse chestnut, European chestnut, ash, *Magnolia acuminata*, red colchicum maple, sweet gum, willow-leaf oak and mossycup oak. These trees should stand about thirty or forty feet apart, in order to have room to develop into perfect specimens; but it is often better to plant at half these distances, or plant some cheaper, rapid-growing trees between them, in order to shade the place quicker, and then cut out alternate trees in a few years. There should be a vacant space directly in front of the house, affording an unobstructed view from the street or road. The trees which are necessary for shade on the front side, should be trimmed

up as they increase in size, so that there will be a view from the second-story window under their lower branches or between them.

Evergreen trees produce an effect in ornamental planting not to be obtained by any other means, and every large lawn should have an evergreen belt or hedge on one side at least. In exposed situations, a screen of large evergreens is of great value in protecting houses and out-buildings from cold northern winds. It is astonishing what a modifying influence a belt of tall evergreens, standing on the north and west side of buildings, will have in blustering, windy weather. The best varieties for this purpose are Norway spruce, hemlock spruce, silver fir, white pine, Scotch pine, American arbor vitæ and *Retinospora obtusa*. It is not always essential that they should be planted in a straight row; it is sometimes preferable to plant in a curved or irregular line, or in a succession of clumps, so as to give the effect of a continuous green background without the formal stiffness of a hedge-row. As a general rule, evergreens do not appear to the best advantage in straight rows; they look better when grouped in clumps, or dotted about in a rather promiscuous manner. The larger varieties should not be planted any nearer to the verge of a carriage-drive than fourteen feet. When planted in clumps, they are often set fifteen feet apart, with three or five trees of one variety together. At this distance, they will attain their perfection in about fifteen years, and will then commence to deteriorate as the branches grow together. After the large shade trees and evergreens are planted, there will be a number of smaller evergreens and flowering shrubs needed for "filling in" the blank spaces. They should be planted in clumps of from three to ten or twelve, with an occasional single specimen in the smaller nooks.

The following are a few of the most desirable dwarf evergreens: *Arbor vitæ compacta*, *A. globosa*, Siberian, Hovey's Golden, Tom Thumb, and George Peabody arbor vitæ. The last is a new golden variety of singular beauty, the hardiest and most distinct golden arbor vitæ yet introduced. *Retinospora plumosa aurea*, *R. plumosa*, *R. obtusa nana*, and *R. squarrosa*, are not naturally dwarf trees, but they can be kept so by frequent shearing. If allowed to grow unchecked they will attain considerable size. Irish, Swedish and pyramidal junipers grow tall and slender, occupying but little room. The dwarf white pine is one of the prettiest small evergreens. It forms a compact, symmetrical bush, three or four feet high and about equal diameter, presenting a dense mass of silvery green foliage. *Abies orientalis*, or eastern spruce, from the shores of the Black Sea, is a very handsome evergreen, of moderate size, and very dense, compact habit. It is one of the neatest and most symmetrical of the spruce family and appropriate for almost any situation.

Weeping trees are at present a fashionable feature in landscape gardening. The following are a few of the most desirable varieties: Weeping beech, cut-leaf weeping birch and common weeping willow grow tall and form large trees. The Camperdown weeping elm and Kilmarnock weeping willow, are dwarf trees, and never grow any higher than the point where grafted. *Abies inverta*, or weeping spruce, is the best weeping evergreen, and it is a very unique and effective tree in a lawn.

Hardy flowering shrubs develop more quickly than any other class of trees, and are therefore indispensable for filling in a new lawn, where it is desirable to get something to make a show as quickly as possible. There are also many nooks and corners that look bare at first, but which will even-

tually be occupied when the other trees are developed. Such places may be filled temporarily with some cheap shrubs, that can be thinned out or removed in a few years as the trees encroach upon them. I name a few of the more recent introductions in this class of plants, all of which are hardy, free bloomers, and desirable for general cultivation, although not yet generally known because of their scarcity. They should be planted more extensively: *Cercis japonica*, or Japan Judas tree; *Cornus sanguinea*, or crimson dogwood; *Exochorda grandiflora*; purple leafed filbert; Standish upright honeysuckle, the earliest and most fragrant variety; dwarf horse-chestnut; *Viburnum plicatum*, or Japan snowball; *Weigela hortensis nivea*, or pure white monthly weigela. The purple beech is one of the most effective trees that can be planted in a lawn, particularly where it can be seen against a background of dark green foliage.—S. C. MOON, in *Country Gentleman*.

#### THE ROOTS OF SOME VEGETABLES; HOW FAR THEY EXTEND.

N. Y. AGRICULTURAL EXPERIMENT STATION.

It becomes quite interesting and important, in agriculture, to know the areas of the soil within which roots feed, as it seems to be quite evident that where we know a plant is shallow rooting, that the fertilizer or manure should be kept near the surface within the region occupied by the roots; where we know that a plant is a deep feeder, or that the roots occupy principally the lower layers of the soil, it would seem reasonable to expect turning the manure deeply under, in this case, would be the preferable way. These considerations are not simply theoretical, for in agricultural experiment it seems desirable to reason out causes and effects from the best data in our possession, and then to bring our conclusions to the

test of verification in field practice. In pursuance of this plan, we have washed out the roots of nearly all of our species of garden plants, and we offer in this bulletin the results noted for several of our important crops.

The system adopted was to dig a deep trench alongside the plants to be investigated, and then, by means of a hose, to bring a spray of water to bear upon the soil, and thus gradually and guardedly wash the earth away in order to discover the roots *in situ*.

In the Eclipse beet, the tap-root was traced downward a depth of nearly two feet. Branches started out from this at intervals during its entire length; no roots appeared to start out above the tap-root. The branches were traced a distance of two feet horizontally from the tap-root. The fibrous roots were very slender and delicate, and though not very numerous, extended over an area of about twelve square feet. They often extend upwards from the branches, and in some cases appeared to reach the surface of the soil.

The Eclipse beet is of the turnip-rooted class, and grows largely above ground.

In the Long Dark Blood variety, the root system, though not different in kind from the above, was slightly more extensive. The main root in the sample examined was smooth and symmetrical for a distance of eight inches, below which it divided into several branches, which rather thick at first, rapidly tapered to the size of a stalk of timothy grass, and gradually thereafter until they became fibrous roots. One of the main roots was traced to a depth of two feet, and one of the horizontal branches a distance of two and a half feet. The small fibrous roots so often seen on the surface of beet roots seem to have very little office, as they extend into the soil scarcely more

than a quarter of an inch from their origin.

In the carrot, the root system, as compared with that of the beet is very small. The tap root in the samples examined soon tapered into a mere filament, which extended downward but about sixteen inches. The horizontal roots seemed to extend little more than a foot. The fibrous roots started chiefly from the tap-root, though a few had their origin near the base of the fleshy root. These extended both deep and shallow, some reaching to the surface of the ground, and others seeming to penetrate the soil as deep as the tap-root.

Very little difference appeared either in the amount or distribution of the roots between the Long Red Altringham, and the French Forcing varieties.

In roots of beet and carrot set out last spring to produce seed, the leading roots penetrated the soil as far as in those grown from seed. The fibrous roots were, however, less developed.

The root system of the onion differs from that of most other garden plants. It is more concentrated. The roots seem to take complete possession of the soil for a small space, but extend but a short distance. In the samples examined, which were of the Blood Red variety, the roots extended but about ten inches in depth, and about the same distance horizontally. The greater part of the roots seemed to be beneath a circle eight inches in diameter, the stem of the plant being the center. There is no tap-root. The roots that start out from the base of the bulb are very numerous, and these give rise to very many branchlets. The latter, however, do not sub-divide, and are usually quite short.

In the cabbage, the root system is decidedly less extensive than in the cauliflower. The plant examined was

of the Very Early Etampes variety, and formed an excellent head. The roots were traced to a depth of about twenty inches, and a distance of eighteen inches on either side. The main root was quite thick for a depth of about six inches, below which it divided into many roots, which tapered for a short distance and then became fibrous, ceasing to taper. The fibrous roots in the upper layers of the soil were not numerous, and some appeared at a considerable depth.

It is quite probable that in the larger varieties of cabbage, the root system is more extensive than in the sample examined.

E. LEWIS STURTEVANT, *Director.*

#### HORSE-RADISH.

There is nothing that gives better relish to meats on the opening of spring than a preparation of horse-radish, that every farmer can enjoy fully as well as he can any vegetable that grows. This plant will grow upon any rich soil, although it will develop more satisfactorily if the soil is inclined to be moist. An excessive development of the root is what is desired, the higher degree of fertility the more satisfactory the result.

All that is required is to obtain a few of the fine roots, which may be planted in the soil by covering up to a little depth, and which will send up young sprouts that will develop good sized smooth roots.

It is not advisable to undertake to use the crowns of old roots, as the development from such is not as satisfactory. The tendency is to throw out a multitude of small roots that do not grow to a size convenient for grating. When once started, but little cultivation is required, for the reason that it is a plant that throws up very vigorous foliage, that shades the ground so fully as to prevent the growth of



anything near it. It does not require many plants to supply an ordinary family with what they would usually make use of during the season. We have found it to do well at the outlet of a sink drain, and also upon the sides of a ditch leading from the barn yard to a mowing lot.

Its preparation for use is very simple, although not very agreeable, if attempted in a warm room, in consequence of its aromatic properties. The roots should be dug as soon as the frost will admit in the spring, or at any other season if desired, (we prefer it in spring) and washed and scraped clean and white, and then passed over a grater until the whole is reduced to a pulp, which should be placed in open mouthed bottles, and thoroughly saturated with good cider vinegar. As a matter of taste, we much prefer to mix with it a little sugar before using. Its use with meats gives a gratifying relish, and so long as it can be procured so easily every farmer's family should have a full supply.—*New England Farmer.*

#### CYCLAMEN FOR THE WINDOW.

Florists cannot understand why the cyclamen has not been more extensively grown for window gardening. There is scarcely a plant used for this purpose that can excel it in any of the features so necessary for show. It has a pleasant fragrance, is graceful in bloom; the colors are various and often unique; the foliage is very attractive, and, to crown all, it is easily grown. Autumn is the proper time to sow the seeds, which should be thinly scattered over the surface of a pan of light, turfy, peaty soil. The covering must be carefully done, and should be accomplished by shaking a little light soil through a fine sieve, merely sufficient to partially protect the seed from the air. Water

well at first, and never thereafter allow the seed to become dry; but, on the other hand, do not deluge the soil so as to rot the seeds. If the seeds are fresh, the young plants will soon make their appearance, with their little roundish leaves showing a tiny bulb at the base, when extra care must be exercised neither to rot nor yet to dry them up. When firmly established, prick them off singly into the smallest-sized pots, and shift them into larger sizes as the roots require more room. During summer they must not be allowed to dry entirely; but at that season the best situation is a cold frame, covered with a lath shade. The ensuing winter they will begin to bloom; but two-year-old plants give the most satisfaction, if well grown.



CYCLAMEN.

Cyclamens do not need a strong heat, nor will they thrive in a very low temperature; but, at the same time, extremes of either will not destroy the plants more readily than the majority of winter vegetation. All winter long they continuously throw up their slender stems, surmounted with delicate white, red and variegated nodding flowers, filling the surrounding air with their pleasant fragrance, as well as de-

lighting the owner for the little care one is obliged to bestow upon them.—  
*Farm and Fireside.*

### TOMATOES.

N. Y. AGRICULTURAL EXPERIMENT STATION.

When the tomato was first known to our gardens, it was a rough ribbed fruit. It has been improved, until now we think that most people will agree that its smooth and regular form, together with the size, at least medium, are most important characters, and these together with earliness, enter into our judgment of what constitutes merit. The slight differences in color and flavour that appear in the numerous red varieties are, so far as family use is concerned, of but secondary importance, and we rarely find a variety so unprolific as to be condemned as not yielding a sufficient quantity for domestic supply.

In the Station garden we have grown nearly all varieties as purchased from seedsmen, and we are led to wonder why so many undesirable kinds are retained, as it surely costs no more to grow the fruit of the best than of the poorest sorts. We therefore assort our varieties as grown at the Station, into two lists, the first of which includes those which possess sufficient merit to make them worthy of cultivation; the second list includes those which might as well in the future be dropped from consideration.

The *Cardinal*, a so-called new variety, producing large, bright scarlet fruit, which is usually nearly or quite smooth, but quite late in ripening.

The *Favorite*, (Livingston's Favorite) we have hitherto recommended. It is medium in season, and this we regard as its greatest fault.

The *New Red Apple* yields medium to large, very smooth fruits, which matured this season earlier than either of the above sorts.

The *Perfection* (Livingston's Perfection) produces medium to large, very deep red fruits, usually smooth, but often rough at the blossom end. In season about the same as the *Favorite*.

The *Paragon* yields very smooth, medium to small scarlet fruits which commenced ripening this year five days before the *Favorite* or *Perfection*.

The *Red Chief* yields bright scarlet fruits of medium size, usually smooth; in season medium.

*Rochester* yields fruit of the largest size, of a deep red color, rather smooth upon the whole, although often rough about the stems. A late variety.

*Tilden's New* yields bright scarlet, small to medium fruits, usually very smooth.

The *Acme*, though faultless in form, has the fault of rotting badly in sections where tomatoes are subject to this disease. Its earliness, together with the remarkable smoothness of its fruit, will doubtless retain for it many friends. We are growing two sorts which are the same as the *Acme*; the one, *Essex Early Hybrid*, the other, a variety, the seeds of which were said to have come from South America.

The *Early Red Smooth*, with us, seems to be the same as the *Extra Early Red*, and the *Early Round Red Smooth*. It has the merit of earliness, smoothness of fruit, and little tendency to rot. We rank this as one of the most desirable of sorts.

The *Mayflower* we have already recommended. This variety, however, still has the tendency to produce small fruits which we hope may disappear after a little longer selection. It is early, but with us, has not sustained its reputation as being one of the first earlies.

The *Boston Market*, produces medium to small fruits, usually very smooth, but only medium in season.

The *Alpha* is a very early variety, yielding fruit of medium size, quite smooth, but often inclining to roughness.

The *Trophy* bears fruit which varies much in size; sometimes so small as to be almost worthless, at others very large. In shape also it is quite variable, sometimes being very rough; in season intermediate.

The *Yellow Visitor* and *Golden Trophy* are of good size, fairly smooth, and are useful varieties to those who desire a yellow tomato.

Besides these standard varieties, there are several sorts which, though possessing little value for the table, have a certain value to the amateur as curiosities. Among these are the *Apple*, *Pear*, *Cherry*, *Plum* and *Currant* tomatoes.

The list that we offer of varieties that possess so few good qualities as to make them unworthy of cultivation where better varieties are to be had, is as follows:

*President Garfield*, which appears to be identical with the long since abandoned *Great Chihuahua*, is utterly worthless with us, for although the fruits are very large they are so late as to ripen only in favorable seasons, and so rough as to be of no value, even when ripe.

The *Arlington*, *Feejee Island*, *New Japanese*, *Orangefield*, *Reail's Island Beauty*, *Red Valencia Cluster*, and *Howard*, have little to commend them as grown in the Station garden.

The *Large Yellow*, *Improved Large Yellow*, *New York Market*, *Precursor*, *Queen*, *Conqueror*, *Early York*, *Gen. Grant*, *Hubbard's Curled Leaf*, *Hundred Day*, *Lyman's Mammoth Cluster*, *Powell's Triumph*, *Large Red*, *Large Red Smooth Round*, *Hathway's Excelsior*, *Little Gem*, *Canada Victor*, *Blount's Champion Cluster*, and *Cook's Favorite* all possess some merit, but since we

have so many better varieties, we do not regard them as worthy of culture.

The public will understand that these notes represent the experiences, as gained in the Station garden, of seeds purchased under the names given, from various seedsmen, but we have reason to believe that the seed was true to name, and represented the variety offered.

E. LEWIS STURTEVANT, *Director.*

#### PEACHES—WHEN RIPE.

Mr. T. V. Munson, of Denison, Texas, gives the following as the order of ripening of the various kinds of peaches now most sought after:—

Brice's Early, large, crimson.  
 Ashby's Early, medium, crimson.  
 Baker's Early May, large, crimson.  
 Hynes' Surprise, medium, crimson.  
 Waterloo, large crimson.  
 Gov. Garland, large, blush white.  
 Bowers' Early, large, blush white.  
 Alexander, medium, blush crimson.  
 Amsden, medium, crimson.  
 Wilder, medium, crimson.  
 Rivers' Early, large, blush white.  
 Hale's Early, large, crimson.  
 Yellow St. John, large, yellow.  
 Mountain Rose, large, crimson.  
 Amelia, very large, blush.  
 Cooledge's Favorite, large, blush.  
 Large Early York, large, blush.  
 Foster, very large, blush yellow.  
 Early Crawford, large, blush yellow.  
 Thurber, very large, blush white.  
 Reeves' Favorite, very large, blush yellow.  
 Prince of Wales, very large, crimson.  
 Lord Palmerston, very large, blush white.  
 Great Eastern, immense, blush white.  
 Old Mixon, large, blush white.  
 Stump-the-world, very large, crimson white.  
 Late Crawford, very large, yellow.  
 Susquehanna, very large, yellow.  
 Cooper's Mammoth, immense, yellow.  
 Infant Wonder, very large, mottled yellow.  
 Silver Medal, very large, blush.  
 Druid Hill, very large, yellow.  
 Brandywine, very large, yellow.  
 Picquett's Late, very large, yellow.  
 Salway, very large, yellow.

## ROSA RUGOSA.

Prof. J. L. Budd, writing to the *Prairie Farmer*, says:—"Four years ago, through the kindness of Prof. Sargent, of the Arnold Arboretum at Boston, we received a small plant bearing the above name. Two years after I noted, in the *College Quarterly*, the beauty of its large, full, distinctive, rose-colored flowers, followed by large, peculiar-shaped, highly-colored and edible fruit; and spoke of the rare beauty, through the season, of its profusion of dark, rich green leaves, plicated as perfectly as those of the *viburnum plicatum*. In addition I then said that such a distinctive and peculiarly hardy species should give rise—by seedling production and crossing—to a family of varieties of peculiar value to the West. At that time I shared the common belief that it came from Japan, and wondered that its foliage should so perfectly endure our hot, dry summers, and that its wood should endure our test winters quite as well as our wild species of the rose.

"Since that time I have had an opportunity for studying the trees and plants of the great "East plain" of Europe, and found the *Rosa rugosa* in public and private collections in North-east Austria, Poland and over Russia, from the shores of the Baltic to points east of the Volga, where the rainfall does not exceed ten inches per annum. Nor was it confined to the single red form coming to us from Japan. The varieties differed in size and shape of the leaf, length and number of spines, size of bush, and above all in the size, color, and perfection of flower. The varieties known as "*Rosa rugosa flore pleno*" varied from half double to one as perfectly double as our best perpetuals.

At the botanical gardens on the Volga the opinion was expressed that the species was indigenous to North Bok-

hara, and the plains of Asia west of the Altai ranges. However this may be, it is, and has been for ages, a favorite species on the East plain of Europe, and we have the best reason for believing that its varieties will take leading rank over our great plains in the near future. I will only add that the interminable prairies north of the Carpathian Mountains, and the Caucasus in Europe, have many varieties of the rose, with thick coriaceous leaves, like the *rugosa*, not known in this country, and which do not seem to be known in South Europe.

## RAISING EARLY POTATOES.

Early in June, *Dr. E. H. C. Goodwin* left at our office some beautiful specimens of Beauty of Hebron Potatoes, raised by him at Governor's Island, in New York bay. They were of marketable size and condition, and, at this season, something so remarkable that we were anxious to learn how they were raised. To an inquiry, the doctor obligingly replies.

"The Potatoes were planted in the open ground on March 29th, the thermometer between that date and April 1st falling as low as 25°. On April 8th the glass of the cold-pits was covered with ice, and the following day it snowed. The sprouts became visible above ground on April 16th, and on the 21st all were well up. The first digging was made on June 4th, and others occasionally till June 10th, with a total yield of over twenty bushels from a piece of ground fifty by twenty-five feet.

"Toward the end of February, I put seed Potatoes in a shallow basket and set them in a rather warm room (say 60°), with plenty of light. By the time the ground can be worked they have made short, thick, dark green shoots, with rootlets showing. They

are then cut to the proper size, dried or rolled in ashes, and planted with a pretty liberal application of ground bone guano in the furrows. Should the season be too backward to allow the ground to be worked at the time the Potatoes should be cut,—which is apparent by the withering of the tubers,—the sets are placed in shallow boxes, with a little soil sprinkled over them. When the ground is in proper condition, the sets are planted out, at which time they have sometimes made roots an inch long.

“If there is danger of severe frost after the vines have appeared above ground, I cover them with soil, which operation serves as a first hoeing at the same time; but a slight frost does not injure them. They are then worked and hilled in the usual way. The bugs are not likely to attack them, as the vines have made nearly their full growth before the larvæ make their appearance. To guard against frost, a mulching of straw might be applied, which need not be removed afterward, and, if heavy enough, would save all after-cultivation.

“Although I have tried this method only on a small piece of ground, I see no reason why market gardeners near large cities could not make it profitable on a larger scale.”—*The American Garden.*

#### SMALL FRUITS TO JAPAN.

An opportunity was afforded a *Free Press* reporter yesterday of inspecting a consignment of small fruit plants which have been selected by Mr. Wm. Saunders, of this city, for the Japanese Government. The collection consisted of twenty-nine varieties in all, seven sorts of strawberries, ten of raspberries, three of blackberries, and nine of currants and gooseberries. The plants were carefully packed in damp moss

and oiled paper, neatly done up in twenty-two packages, and were forwarded to-day by mail *via* San Francisco. The Japanese have none of these small fruits native to their country, but have lately introduced some varieties of strawberries which have succeeded well. They are anxious to obtain additional sorts of these and other small fruits. At the late meeting of the British Association in Montreal, Japan was represented by one of her most distinguished scientists, Prof. Dairoku Kikuchi, chief of the Tokio University; there was also present Mr. Arakowa, representing the Agricultural Department of Japan. From conversation with these gentlemen information was obtained in regard to the special wants of Japan in this direction, and arrangements made for supplying them. The plants have been selected with much care, and forwarded to Sen Tsuda, who is in charge of the Government Experimental Farm at Tokio, who will take care of them, and, if successful, propagate from them for distribution to other parts of the empire. In return Mr. Saunders is promised specimens of Japanese fruits, flowers and seeds of interesting ornamental shrubs and trees. This interchange of products will probably prove a benefit to both countries.—*London Free Press.*

A NEW GRAIN.—We should be glad if all our readers could see the nine plants at the Rural Grounds, which are hybrids between wheat and rye. The heads of one plant are very different from either of these grains. Should this cross produce a new grain as hardy and prolific as rye, giving flour of a better quality, it would prove a great acquisition. But we are not prone to count chickens before they are hatched. The new grain may prove inferior, in all essential particulars, to either parent. Meanwhile, it is certainly worthy of being recorded that the cross has been effected.—*Rural New Yorker.*

## PRESERVING TIME.

Said Mr. Baldwin Apple  
To Mrs. Bartlett Pear :  
" You're growing very plump, madams,  
And also very fair.

" And there is Mrs. Clingstone Peach,  
So mellowed by the heat,  
Upon my word she really looks  
Quite good enough to eat.

" And all the Misses Crab-apple  
Have blushed so rosy red,  
That very soon the farmer's wife  
To pluck them will be led.

" Just see the Isabellas,  
They're growing so apace  
That they really are beginning  
To get purple in the face.

" Our happy time is over,  
For Mrs. Green Gage Plum  
Says she knows unto her sorrow  
Preserving time has come.

" Yes," said Mrs. Bartlett Pear,  
" Our day is almost o'er,  
And soon shall we be smothering  
In syrup by the score."

And before the month was ended,  
The fruits that looked so fair  
Had vanished from among the leaves,  
And the trees were stripped and bare.

They were all of them in pickle,  
Or in some dreadful scrape ;  
" I'm cider," sighed the Apple ;  
" I'm jelly," cried the Grape.

They were all in jars and bottles,  
Upon the shelf arrayed ;  
And in their midst poor Mrs. Quince  
Was turned to marmalade.

3 Nicholas.

**ROSE CHESHUNT HYBRID.**—We have here a specimen of this Rose, now in full bloom, on the roof of a house from which frost is excluded. I counted on it the other day between 80 and 90 fully expanded roses and about 200 buds, and we have cut about four or five dozen blooms off it already. The plant covers about 9 feet of roof, and is planted in a border, 9 inches wide and 3 feet long.—J. W. LONGROO, *Pull Court, Teukesbury, Eng.*

**MOORE'S EARLY GRAPE** has given better satisfaction this season than heretofore. The clusters and berries have been larger, which would seem to indicate that it improves with age. It is one of the few that have been able to hold their foliage throughout this very trying season. In quality it is much like its parent, the Concord. It is hardly equal to the Wor-

den or Cottage, but it is one of the few kinds that may be confidently relied on for fruit, no matter how precarious the season. Its earliness adds much to its value. Champion is earlier, but much inferior in quality.—E. WILLIAMS, *Montclair, N. J., in Rural New Yorker,*

**STRAWBERRIES.**—I tested the following varieties of strawberries this season : Bidwell, Sharpless, Downing, Crescent, Warren, Norman, Manchester, Big Bob and Cumberland. As to productiveness, they ranked thus : Crescent, Bidwell, Manchester, Downing, Cumberland, with not much difference between the others. I think the Warren was the best flavored berry. I was disappointed in the yield of the Manchester. Ripe berries were picked on the Bidwell, August 22nd, and there were then some green ones. I consider the Bidwell the best one in the bed. The new black grape August Giant mildews very badly with me. The vine is five years old, and I don't believe there is a bunch on it but what is mildewed.—O. F. FULLER, *Worcester Co., Mass., in N. E. Homestead.*

**AMMONIA FOR FLOWERING PLANTS AND STRAWBERRY PLANTS.**—A writer in *London Gardener's Chronicle* says : Last year I was induced to try an experiment in Chrysanthemum growing, and for this purpose purchased one pound of sulphate of ammonia, which I bottled and corked, as the ammonia evaporates very rapidly. I then selected four plants from my collection, putting them by themselves, gave them a teaspoonful of ammonia in a gallon of water twice a week. In a fortnight's time the result was most striking, for though I watered the others with liquid cow manure they looked lean when compared with the ammonia watered plants, whose leaves turned to a very dark green, which they carried to the edge of the pots until the flowers were cut. As a matter of course the flowers were splendid. The ammonia used is rather expensive, as I bought it from a chemist's shop ; this year I intend getting agricultural ammonia, which is much cheaper. I have also tried it on strawberries, with the same satisfactory result, the crop being nearly double that of the others ; it is very powerful, and requires to be used with caution.

# INDEX.

	PAGE		PAGE
Abbotsford Fruit Growers' Annual Exhibition .....	253	Beautiful Day .....	48
Act against Noxious Weeds .....	244	Beets .....	252, 277
Alvey Grape .....	248	Best Time to Cut Timber .....	10
Amazon Lily .....	164	Bidwell Strawberry .....	260
Amateur's Experience .....	246	Blackberry, Early Harvest .....	17
Am. Pom. Society's Rules .....	20	Blackberry, Taylor's Prolific .....	26, 261
American Wonder Pea .....	106	Blackberry, Wilson Junior .....	138
American Forestry Congress .....	195	Blackberry, Early Cluster .....	210
American Heart Cherry .....	204	Blackberries, Hardy .....	142
Ammonia, a fertilizer .....	238	Black Ants .....	171
Annual Meeting of Fruit Growers' Association .....	193, 243	Blackbirds .....	173
Anthomyia brassicae .....	43	Black Cherry .....	11
Aphides .....	240	Black Tartarian Cherry .....	204
Apple, Baxter's Red .....	59	Book Notices .....	22, 47, 72, 95, 119, 143, 167, 191, 215, 239
Apple, Charlottenthaler .....	259	Bramble, Double White .....	47
Apple, Canada Baldwin .....	31, 84	Branch Societies .....	75
Apple, Golden White .....	260	Brant Grape .....	248
Apple, Grand Sultan .....	259	Brighton Grape .....	235, 248
Apple, Greening .....	201	Burnet Grape .....	248
Apple, Fameuse .....	142	Butterfly Weed .....	50
Apple, Hurlburt .....	191	Cabbage Worm .....	34, 236
Apple, Lady Washington .....	106	Cabbage Maggot .....	42
Apple, Longfield .....	136	Cabbage Growing .....	166
Apple, Mann .....	103	Cabbage Pests, Cure for .....	192
Apple, McIntosh Red .....	103	Cabbage .....	241, 278
Apple, Ontario .....	103	Cabbage, Savoy .....	120
Apple, Prolific Sweeting .....	260	Calla Lily .....	37
Apple, St. Peter's .....	259	Canada Baldwin .....	31, 84
Apple, Walbridge .....	10	Can Fruit, How to .....	118
Apple, Wealthy .....	81, 189, 208	Cape Elizabeth, Fruit at .....	54
Apple, Yellow Transparent .....	259	Carp as a Food Fish .....	39
Apples, Best Dessert .....	135	Carrots .....	241, 277
Apples for the North .....	65	Catalpa Speciosa .....	177
Apples, Keeping .....	102	Cauliflower .....	276
Apple, Remedy for Scab .....	127, 252	Celery .....	279
Apples, Shipping, to Nova Scotia .....	230	Celery, New Way to Bleach .....	48
Apples, Shipping, to England .....	250	Celery, Experiments with .....	175
Apple Trees .....	103	Celery Culture .....	199
Apple Trees in Iowa .....	84	Charlottenthaler Apple .....	259
Apples, Valuable Seedlings .....	104	Cherries .....	203, 232
Anclepias tuberosa .....	50	Cherries in County of Grey .....	149
Asparagus .....	137, 151	Cherry, American Heart .....	204
Astronomical Observatory .....	74	Cherry, Black Tartarian .....	204
Atlantic Strawberry .....	1, 35, 240	Cherry, Black Eagle .....	232
Bark Louse .....	105	Cherry, Buttner's Yellow .....	233
Barrie Exhibition .....	273	Cherry, Early Purple .....	203
Baxter's Red Apple .....	59	Cherry, Early Richmond .....	233
Beans .....	16	Cherry, Governor Wood .....	204, 233
		Cherry, May Duke .....	203

	PAGE		PAGE
Cherry, Napoleon Bigarrean	233	Fall Transplanting	224
Cherry, Reine Hortense	232	Fameuse Apple	142
Cherry, Tradescant's Black Heart	232	Fruit-farm Experience	204
Cherry, A New	240	Farm Grounds, Improving	36
Cherry Slug	220	Fay's Currant	49
Chinese Farming	41	Ferns	60, 111
Chionodoxa Lucilia	99	Fertilizers	188
Clematis	145	Fences	30
Climbing Roses	121	Field Mice	274
Clinton Grape	155	Florida in Winter	27, 79, 99, 123, 147
Coal Ashes	48, 120	Flower Gardening in School Grounds	9
Cobourg Exhibition	270	Flowers of Burns	144
Cochin China Grape	76	Forestry	10, 140, 161, 186, 264
Codlin Moth	24, 35, 105, 273	Forestry Association of Quebec	12
Codlin Moth, Trap for	105	Foreign Fruit	144
Colpoj's Bay, Fruit at	155	Freestias	139
Columbines	140	Frost of May 29th	153
Cornus Stricta Variegatus	256	Frosts in Eastern Ontario	152
Cornus Alba Sibirica	256	Frosts, Late	177
Corn, Experiments with	69	Fruit at Colpoj's Bay	155
County Agricultural Exhibitions	76	Fruit at Cobourg Exhibition	270
Crataegus Carrieri	240	Fruit at Barrie Exhibition	273
Crevling Grape	248	Fruit in Manitoba	172, 275
Crystalized Fruit	35	Fruit in North Simcoe	83
Cucumbers	279	Fruit in 1833	32
Currants	216, 252	Fruit Growing at Cape Elizabeth	54
Currant, Fay's	49	Fruit Growing at Kemptville	228
Curculio	35, 111	Fruit Growing in the North	81, 107, 174
Cuthbert Raspberry	21, 261	Fruit Growing; Does it Pay?	201
Cyclamens	93, 283	Fruit Growers' Association, County of Renfrew	3, 85
Cytisus Capitatus	256	Fruit Growers' Association of Ontario	54
Cytisus Purpurea	256		75, 193, 243, 268
Daisy Analyzed	264	Fruit, How to Can	118
Dandelion Culture	182	Fruit List for each County	75
Daniel Boone Strawberry	73	Fruit Nomenclature	221
Daphne Altaica	256	Fruit Prospects in Illinois	137
Delaware Grape	248	Fruits, Marketing	188
Deutzias, The	241	Fruits, Notes on New	207
Deutzia Crenata	114, 241, 274	Garden, Spring work in	125
Duchess D'Angouleme Pear	173	Gas Tar for Mealy Bug	157
Early Cluster Blackberry	210	Girdled Orchard Trees	41
Early Harvest Blackberry	17	Glory of the Snow	99
Early Peas	178	Gloire de Dijon Rose	183
Early Purple Cherry	203	Golden Feather	40
Early Raspberries	236	Golden White Apple	290
Early Tomatoes	235	Gooseberry, New	4
Early Victor Grape	57, 220	Governor Wood Cherry	204
Elvira Grape	247	Grain, A New	287
End of the Year	266	Grafting Wax	215
English Sparrow	16, 87, 131	Grand Sultan Apple	259
Eucharis Amazonica	164	Grape Culture	107
Euonymus nanus	256	Grape, Summer Pruning	114
Evergreen Growing	225	Grape Vines, Protecting in Winter	7
Experimenting Committee	76	Grape, Alvey	248
Experience, Amateur's	246	Grape, Brant	248
Experience, Geo. Mitchell's	219	Grape, Brighton	235, 248
Failures	52	Grape, Burnet	248
		Grape, Clinton	155



	Pages		Page
Grape, Cochin China .....	77	Lady Grape .....	247
Grape, Creveling .....	248	Lady Washington Apple .....	106
Grape, Delaware .....	248	Large Golden Prolific Gooseberry .....	5
Grape, Early Victor .....	57, 220	Late Frosts .....	177
Grape, Elvira .....	247	Lawn, How to Make .....	237
Grape, Iona .....	143, 248	Leaves .....	190
Grape, The Jessica .....	25, 91, 247	Lettuce .....	88, 277
Grape, Lady .....	247	Ligustrum Fortunei .....	144
Grape, Martha .....	247	Ligustrum Vulgare .....	256
Grape, Moore's Early .....	223, 240, 247, 288	Lindley Grape .....	248
Grape, The Niagara .....	15, 61, 232, 265	Lines to Bed of Pansies .....	216
Grape, Pocklington .....	247	Little Miss Brier .....	120
Grape, Purity .....	247	Lombard Plum .....	24
Grape, Rogers' 3 .....	248	Longfield Apple .....	136
Grape, Rogers' 9 .....	248		
Grape, Rogers' 44 .....	248	Maine Plum Orchard .....	263
Grape, Worden .....	193	Manchester Strawberry .....	235
Grapes and Temperance .....	37	Mangolds, Cost of Raising .....	189
Grapes, A thousand clusters of .....	38	Manitoba Fruit Growing .....	172
Grape, New, in Province of Quebec .....	56	Mann Apple .....	103
Grapes in the North .....	107, 164	Marianna Plum .....	33
Grapes in United States .....	143	Marketing Fruits .....	188
Grapes .....	163, 246, 252	Marlboro' Raspberry .....	196
Gregg Raspberry .....	240	Martha Grape .....	247
Green Peas .....	96	Massasoit Grape .....	248
Greening Apple .....	201	May Duke Cherry .....	203
Grosbeak, The .....	64, 90, 132	Mealy Bug .....	157
		Melons .....	279
Hansell Raspberry .....	196	Melon, Best for Market .....	36
Hardy Blackberries .....	142	Mice Girdled Trees .....	41
Hardy Pear Trees .....	34, 141	Mice, To Prevent from Girdling, 60, 132, .....	274
Hardy Roses .....	156	Mildew, Remedy for .....	45
Hardy Shrubs .....	255	Milking Hour .....	144
Horse Radish .....	282	Mississippi Valley Hort. Society .....	2, 6, 268
Hoya Carnosa .....	38	Mitchell's, Geo., Experience .....	219
Hurlburt Apple .....	191	Moore's Early Grape .....	223, 240, 247, 288
Hydrangea Paniculata Grandiflora .....	221	Mrs. Garfield Strawberry .....	190
	251, 273	Mulching with Moss .....	236
Hydrangea Loevigata .....	255	Muskoka, Notes from .....	61
Hypericum Androsæmum .....	256		
Hypericum Elatum .....	256	McIntosh Red Apple .....	103
Hypericum Hircinum .....	255		
Hypericum Kalmianum .....	255	Narcissus .....	146
Hypericum Salicifolium .....	255	New Cherry .....	240
		New Gooseberry .....	4
Indiana State Fair .....	195	New Orleans Exhibition .....	8, 157, 170, 216
Indian Corn Experiments .....	69		242, 269
Insect Pests .....	213	Niagara Grape .....	15, 61, 232, 265
Insecticide, Butter-milk .....	168	Niagara and its Wild Flowers .....	116
Insecticide, Kerosene .....	96	Nomenclature of Fruit .....	221
Insects Infesting the Rose .....	183	North Simcoe, Fruit in .....	83, 132
International Fruit Exhibition .....	8	Notes on New Fruits .....	207, 219
Iona Grape .....	143, 248	Nova Scotia, Letter from .....	202
Irrigation .....	175	Noxious Weeds Act .....	244
		Nut-bearing Trees, Growing of .....	185
Jacqueminot Rose .....	163	Nymphaea Odorata .....	3
Jessica Grape .....	25, 91, 247		
		Obituary .....	170
Kemptville, Fruit at .....	228	Officers of F. G. Association .....	244
Kerosene Insecticide .....	96		

	PAGE		PAGE
Oleander .....	214	Quebec Forestry Association .....	12
Old Apple Tree .....	192	Question Drawer .....	51, 78, 98, 134, 170 198, 221, 243
Onions .....	277	Radishes .....	279
Onion Culture .....	210	Raisin Vineyard .....	66
Ontario Apple .....	103	Raspberry, Crinson Beauty .....	261
Ontario Tree-planting Act .....	44	Raspberry, Cuthbert .....	21, 261
Ornamental Planting .....	165, 279	Raspberry, Gregg .....	240, 261
Our Failures .....	52	Raspberry, Hansell .....	196, 261
Our Old Apple Tree .....	168	Raspberry, Marlboro' .....	196
Pansies, Culture of .....	112, 160	Raspberry, Rancocas .....	275
Paris Green for Curculio .....	111, 235	Raspberry, Shaffer's Colossal .....	21, 196
Parsnips .....	277	Raspberry, Souhegan .....	197, 235
Peas .....	277	Raspberry, Superb .....	196, 220, 261
Pea Bug .....	168	Raspberry, Tyler .....	240
Peas, Early .....	178	Raspberry Canes Diseased .....	159
Pea, American Wonder .....	106, 249	Raspberry Growing for Market .....	180
Pea, Bliss' Abundance .....	251	Raspberries, Profit in .....	192
Peaches in Cold Climate .....	24	Raspberry Notes .....	196, 254
Peach Cultivation .....	71	Raspberries Early .....	236
Peaches at Kincardine .....	220	Raspberries in Hills .....	239
Peaches, Order of Ripening .....	285	Reclamation of Drifting Sands .....	10
Peach, Stevens' Rarripe .....	176	Red Spider .....	93, 134
Pear-blight .....	52, 212	Remedies for Scab on Apple .....	127
Pear Trees Diseased .....	171	Renfrew County F. G. Association .....	3, 85
Pear Trees, Hardy .....	34, 141	Report on Trees received .....	62, 88, 273
Pears, Dwarf or Standard, for Profit .....	235	Report for 1883 .....	98, 184
Pear, Duchess d'Angouleme .....	173	Rhubarb, When to Can .....	110
Persian Cyclamen .....	93	Rhubarb, Early Paragon .....	96
Pelargoniums .....	24, 264	Rock-work .....	111,
Plant Lice .....	240	Roses .....	223
Plum, Lombard .....	24, 169	Roses, Climbing .....	121
Plum, Marianna .....	33	Roses, Hardy .....	156
Plum, Yellow Egg .....	97	Rose, Insects Infesting the .....	183
Plum, Double-Flowering Myrobalan .....	44	Rose, Cheshunt Hybrid .....	288
Plum Orchard in Maine .....	263	Rose, Gloire de Dijon .....	183
Pleurisy Root .....	50	Rose, Jacqueminot .....	163
Pollen, Influence of .....	237	Rosa rugosa .....	286
Potatoes, Experiments with .....	92, 113	Roots, how Far they Extend .....	281
Potatoes, Raising Early .....	286	Rogers' 3, Grape .....	248
Potentilla fruticosa humulus .....	256	Rogers' 9, Grape .....	248
Potentilla Salesovii .....	256	Rogers' 44, Grape .....	248
Pocklington Grape .....	247	Russian Apples .....	259
Premiums .....	98	Russian Mulberry .....	4, 270
Premium Plants for 1885 .....	267	Rules of American Pom. Society .....	20
Premium Seeds .....	76	Rubus fruticosus pomponius .....	47
Postage on Plants .....	147	Sap, Early Rising .....	102
Poultry .....	201, 244	Saunders, Wm. .....	217
President Wilder's Address .....	19	Savoy Cabbage .....	120
Preserving Time .....	288	Scab on Apple .....	127, 252
Privet .....	256	Scarlet Geraniums .....	151
Prospect Park .....	208	Seedling Peach Trees .....	179
Prolific Sweeting Apple .....	260	Shaffer's Colossal Raspberry .....	21, 196, 261
Protecting Grape Vines .....	7	Shamrocks, The .....	168
Prunus pissardi .....	159	Sheep Destroying Curculio .....	275
Prunus padus aucubifolia .....	256	Shipping Apples to Nova Scotia .....	230
Pump for Spraying Trees .....	15	Shipping Apples to England .....	250
Purity Grape .....	247	Shepherdia argentea .....	272
Pyrethrum aureum .....	40		
Pyrethrum for the Cabbage Worm .....	236		

	PAGE		PAGE
Shelter for Small Fruits .....	11	Thistles .....	257
Small Fruits, Hardy .....	33	Thorn, Flowering, New .....	240
Small Fruits to Japan .....	237	Thoughts, A few .....	135
Small Fruits .....	260, 262	Thousand Clusters of Grapes .....	38
Small Fruits, Profits of .....	48	Tomatoes .....	235, 252, 284, 285
Snow Apple .....	142	Tomato, Mayflower .....	252, 278
Solanum, The Climbing .....	263	Tomatoes, Experiments with .....	187, 241
Sorghum Sugar .....	70	Treeless Country .....	216
Souhegan Raspberry .....	197	Tree-planting Act .....	44
Sparrow, English .....	16, 87, 131	Trees with Colored Foliage .....	67
Sparrows and other Birds .....	128	Trees, having Flowers .....	238
Sparrows and Parasitic Plants .....	150	Turnips .....	241, 277
Spraying Fruit Trees .....	15	Tyler Raspberry .....	240
Spring Flowers .....	238		
Spring Work in the Garden .....	125	Valuable Seedling Apples .....	104
Spots on Apple .....	127, 252	Valuable Suggestions .....	64
Squashes .....	278	Vegetables, The Best .....	277
Squash for Market .....	236	Vegetable Roots, Length of .....	281
Stevens' Rarripe Peach .....	176	Vines for Window .....	67
Strawberry, Atlantic .....	1, 35, 240		
Strawberry, Bidwell .....	260	Walbridge Apple .....	10
Strawberry, Daniel Boone .....	73	Water, Right to .....	223
Strawberry, Manchester .....	235	Wax Plant .....	38
Strawberry, Mrs. Garfield .....	190	Wealthy Apple .....	81, 189, 208
Strawberry, Parry .....	276	West Simcoe Fruits .....	273
Strawberry, Sharpless .....	260	What Our Readers Say .....	29, 86
Strawberries .....	288	White Water Lily .....	3
Strawberry Prospects .....	90	White Lily .....	167
Strawberry Culture .....	64	Who Sets the Fashions .....	96
Strawberry Sun-scald .....	171	Whortleberries .....	142
Strawberry, The .....	89, 133	Wild Black Cherry .....	11
St. Peter's Apple .....	259	Wilder's, President, Address .....	19
Sulphur for Mildew .....	39	Wilson Junior Blackberry .....	138
Sulphur for Pear Blight .....	39	Winter Meeting of the Fruit Growers' Association .....	54, 268
Sulphur for Peach Yellows .....	39	Wood Ashes .....	37, 50, 192
Summer Meeting of F. G. Ass'n .....	75, 122	Worden Grape .....	193
Summer Pruning of the Grape .....	114		
Sunflower Seed .....	34	Yellow Egg Plum .....	97
Superb Raspberry .....	196, 220	Yellow Transparent Apple .....	259
Sweet Corn .....	158	Yucca in California .....	46
Tallest Trees in the World .....	46		
Taylor's Prolific Blackberry .....	26, 261		

