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ASTERS

# THE Canadian Horticulturist.

VOL. V.]

NOVEMBER, 1882.

[No. 11.

## ASTERS.

These are late summer blooming annuals, without which the flower garden in September seems bare of bloom. The coloured illustration in this number will give our readers a good representation of the general form and colouring. There is a great variety of these beautiful flowers, differing in size of plant and form of flower, but each having a beauty peculiar to itself. Some of them grow quite tall, upwards of two feet in height; others are very dwarf, scarcely attaining to more than six inches. The variety known as new rose is a great favourite, and may be had in fifteen separate colours. The new Crown or Cocardeau Asters have all a white centre surrounded with a broad border of carmine, or blue, or scarlet, or violet, &c., and are very attractive. One of this class will be found in the coloured

plate. The New Victoria variety has a fine pyramidal habit with large flowers. The largest flowered is the Washington Aster, sometimes attaining to five inches in diameter. The dwarf Chysanthemum-flowered grows to about one foot in height, and flowers later than most of the others.

Asters require a rich soil, worked to a good depth, in order to their full development. The seed may be sown in a cold frame or in a seed bed in the garden. After the plants have become strong they should be transplanted in damp or cloudy weather into beds prepared for them. The plants may be set about a foot apart each way in the beds, except the dwarf growing sorts, which may be planted about four inches apart. The dwarf varieties make a very pretty border planted in single rows along the edge of the garden walk.

### THE CANADIAN HORTICULTURIST FOR 1883.

The next number will close the current volume, and the term of subscription of most of our readers will expire at the same time; of all, indeed, save a few names which have already sent their dollar for 1883. Many encouraging letters have been received during the

year expressive of kindly appreciation of the efforts made to improve this monthly, and many have given practical expression to their appreciation by shewing the magazine to their friends and inducing them to subscribe. To all who have in any way encouraged

the efforts of the Directors to maintain a monthly periodical devoted to the dissemination in Canada of information concerning horticultural matters, most sincere and hearty thanks are hereby given. It is believed by them that such a monthly periodical is essential to the horticultural progress and prosperity of the country, and that any effort made to extend its circulation deserves the thanks of everyone who desires to see this country take the position it is capable of maintaining in all fruit-growing and horticultural matters.

It is the intention of the Directors to continue the *Canadian Horticulturist* during the year 1883, and to make it as attractive and interesting as it has been during the past year, and as much more so as the means at their disposal will permit. If the circulation could be increased to four thousand, the additional means derived therefrom would be expended in still further enlarging and embellishing the magazine. Will not our readers make an effort to accomplish this desirable object by sending one new subscriber with their own renewal before the close of this year, so that the Directors may feel enabled to begin the year with an additional number of pages of reading matter, and make arrangements for increased illustration. If each subscriber would procure but one new name the circulation would then be about four thousand, and such improvements could then be made as the Directors have not yet been able to secure for want of means.

Every subscriber becomes entitled to receive not only the *Canadian Hor-*

*ticulturist* every month, but also a copy of the Annual Report of the Fruit Growers' Association for 1882, and bound with it, the Annual Report of the Entomological Society for the same year. In addition to these, each subscriber will have sent to him by mail, post-paid, whichever of the following articles he may prefer, namely :

- A Rose Bush, or
- A Peonia, or
- A Vine of the Worden Grape, or
- A Plant of the Niagara Raspberry.

In order that a sufficient number of these reports and plants may be secured to meet the requirements of subscribers, it is essential that subscriptions should be sent in before the first of January next. The Directors cannot promise that those whose subscriptions are received after that day will be supplied as they might wish. The edition of the Reports was exhausted this year, so that those who sent in their names at a late day may have failed to receive a bound copy. And the same was true of some of the plants distributed last spring. That all disappointment from these causes may be avoided, the Directors wish it to be clearly understood that subscribers whose names are received after the first of January next, must not depend upon receiving the reports or plants. The Directors will do all in their power to meet the wishes of any who subscribe after that date, but cannot promise anything more than the current numbers of the magazine.

Those who may desire to make an effort to increase the circulation of the

*Horticulturist* will be furnished with a sample copy and receipt book, on application to the Editor at St. Catharines, or to any of the Directors, whose names and address will be found on the third page of the cover. As some remuneration for their labor they will be allowed a commission of twenty per cent. on all new subscribers, and ten per cent. on all renewals of present subscribers, whose names and subscriptions are sent in to the Editor before the first day of January, 1883.

The subscription price is only one dollar a year. Will it be possible for anyone who has any desire to be informed upon any of the subjects discussed in the pages of the *Horticulturist*, or treated of in the Reports, to obtain so much valuable and practical information elsewhere for that sum? The twelve colored illustrations alone are well worth the whole subscription. The information given is drawn largely from the practical experience of Canadian cultivators, and is just such as Canadians need to guide them in their operations. It is the only work of the kind published in Canada, and as such has claims upon the support of Canadians, if it be suited to their needs. And the publication of it is not undertaken for any private ends, but all the funds received are expended in the interests of its readers. The Directors, therefore, look confidently for the hearty co-operation of every one who feels any interest in developing the resources of our country in this direction, and expect through your efforts in this behalf that the subscription list of this magazine

will be at least doubled before the advent of the new year.

#### FRUIT AT THE PROVINCIAL EXHIBITION.

Notwithstanding the almost entire failure of the leading fruits in many parts of the province, the show of fruit at Kingston was not only large but of excellent quality. The display of apples and pears was hardly as large as it was last year, but the samples shown were generally very fine. In plums there was a marked increase, some very fine collections having been shown from sections that heretofore have not made much of an exhibit of this fruit. The Owen Sound collection carried off the first prize, notwithstanding that the crop was reported to have been a failure this season.

The progress made in the cultivation of grapes is very marked. The extent of the exhibit of this fruit, as well as the beauty and perfection of the samples shown, is very creditable to our grape growers. Each year brings out a greater variety, and more perfect specimens. It is a wonder that every farmer does not devote some space to a choice collection of grape vines. In two years from planting he will begin to gather grapes, and can have a continuous supply of this most delicious fruit all through the autumn. We now have varieties ripening in this climate in August, followed by others that keep up a succession until winter, and in fact, some of them can be kept until after the holidays, such as the Salem, Vergennes, and Iona.

There is one bad practice that seems to be adopted by some exhibitors, namely, that of ringing the bearing branches in order to increase the size of the berries. As this practice greatly impairs the flavour of the fruit, producing watery, dropsical berries, it should not be encouraged, and exhibitors should be restricted to naturally grown fruit. Skilled judges will at once detect these abnormal fruits, and societies should instruct them to discard all such in making their awards.

There was also a very creditable display of peaches. The crop was almost cut off by the cold easterly storm that visited us when the trees were in blossom. The early Crawford seems to have escaped, somehow, in many places, and those who have been thus favoured will reap golden harvests. We now have varieties ripening in July, followed by other sorts which keep up a supply until almost winter.

It is gratifying to note how from year to year fruit culture is developing and extending over the province, as appears from the exhibits which are made at our autumnal shows. We believe, however, that far greater things are yet in store, and that Ontario will be the great fruit growing country of this continent.

THE SHARPLESS STRAWBERRY did as well as ever, being the largest of all as usual, and more productive. It is not particularly heavy soil this variety requires to do well, but exceedingly high culture. The soil must be *rich*, and well manured also; to have it do its best a good sandy loam is apparently the soil best suited to its wants.—*Farm and Garden*.

#### JOTTINGS BY THE WAY IN THE EASTERN DISTRICT.

In a somewhat busy season, (and tell me the time to the tiller of the soil that isn't busy), I stole a day in the interests of the Fruit Growers' Association, and submit the following, which may interest some:—

*Apples*.—They should be last on our list. Our report of them must be unsatisfactory. In quantity they are a fair crop, but in most cases diseased, the Fameuse so much so as to be almost unsaleable. We try to pare as many as we can, and so used, they are as good as the best, but the process is a *slow one*.

Heartily we will thank the man who will give us the cause of this black spot or fungus, and more him who will give us a cure.

In the *Horticulturist*, March, 1882, is a paper from J. B. Merrill, from which we had hopes that sulphur applied as there suggested would effect a cure. We tried the experiment on 100 trees, and found it a *failure*. It has been suggested to me by one well versed in these matters, that I drove the plug so far into the tree as to prevent the sulphur fumes passing up with the sap; that may be, we will repeat the experiment, using grafting wax to cover the orifice.

*Potatoes*.—The Early Rose is still the favorite, and buyers ask for it in preference to all other kinds, simply because they know it to be a first-class table potato. So it is, but the Beauty of Hebron is earlier and of better flavor.

The Dempsey is in every respect good, prolific, and good to use the year round. The Peerless I have found among the best for spring use. With fair play it yields abundantly. Although of very large size, I have always

found them sound to the heart. Many of my neighbors last year pronounced it to be the best potato they ever ate.

White Elephant—I planted a peck, the return was 4 bushels. As to their quality I can't speak. Late Rose and Snowflake are both good. I can tell you, however, a big story about the White Star. I had one potato, cut it into 9 eyes, planted in ordinary ground, and had from it 38 lbs. *Satis bene* I say. I boiled one and found the quality good.

I'll weary you and your readers, indulge me with a closing word on grapes. I intended visiting the Beaconsfield vineyard, but the day's time didn't permit. We know their grapes to be early, quite a consideration in these parts; as to quality, the less said the better.

The only man who has been brave enough to go into the business in our section is Mr. William Rice, of Mill-roche. Among many discouragements—his neighbors kindly hinting he was spending the time of many men for nought, his own besides—he has made a very successful start. Tell me, readers, what is worth having without labor and discouragements many. Mr. R. has about three acres planted with Concord, Moore's Early, Brighton, and Champion grapes. They were planted three years ago, trained, on trellis six feet apart, seven feet between rows. He finds Brighton and Moore's Early the most profitable. I recommend to him another acre of Beadle's Jessica.

Good luck to our enterprising neighbor. He seems to go on the principle, that whatever is worth doing is worth doing well. That he has done.

If readers have had patience to read so far, we'll forgive them till next time.

JOHN CROIL.

Aultsville, Oct., 1882.

#### REPORT ON PLANTS RECEIVED FROM THE FRUIT GROWERS' ASSOCIATION.

DEAR SIR,—I send you report on plants received from the Association up to date.

*Burnet Grape*.—Is growing slowly and steadily. Has sixteen bunches of grapes on it this year, which should be ripe next week.

*Moore's Early Grape*.—Growing well, strong and healthy looking. Has every appearance of succeeding in this locality.

*Saunders' Hybrid Raspberry*.—I removed the plant to a sandy soil and manured it well, which has caused it to grow rapidly and bear some fruit. It promises well for next year. Planted it along with 100 Lost Rubies, a fine variety, bore fruit on old stocks same year as planted.

*Hydrangea Paniculata*.—Does not grow well. It is about the same size as the first year, and will have flowers soon. I planted it in a small keg with rich earth, but it grows no better than at first. It is not a success with me.

I mentioned last year that the Ontario Apple died. It is far too tender a kind for this locality, something like King of Tompkins, which was also winter killed.

I expected to have seen some reports of the Wealthy Apple you distributed and how it stood the winter, but have seen none in the *Canada Horticulturist* as yet. I planted a one year old last fall, and it was winter killed, but fall planting is not suitable here, so I do not consider this a criterion. I have planted this spring 150 one to three year old Wealthys, and expect most of them to come through the winter. I have not lost any trees from the tap root entering the clay soil, as the *habitués* hereabouts said I would; and

have about 200 Fameuse bearing for the first time. I have altogether 1,000 apple trees in good condition.

Yours truly,

J. H. CUMMING.

P. S.—I would suggest your distributing the Arctic plum next season.

St. Hilaire, P. Q., Sept. 12, 1882.

#### THE GREEN CABBAGE WORM.

DEAR SIR,—For some years past the growing of cauliflower and cabbage has been rendered very difficult and unsatisfactory, owing to the large green grub that feeds on the leaves. About a month ago my cauliflowers were rapidly being destroyed, when I made some strong brine, using common salt, and watered the plants lightly, sufficiently to wet the leaves, but not to soak into the ground and scorch the roots. The next day I found every grub dead, and have not seen a living one since. Hoping that this information may be of much value to cabbage growers, I have thought it worth placing in the hands of the public.

FRANK EVANS.

Orillia, Oct. 3, 1882.

#### LETTER FROM HON. M. P. WILDER.

MY DEAR SIR,—I have just received the report of the Ontario Fruit Growers Association for 1881. I am happy to state that no better appropriation of the Government's funds could be made than to encourage the development of the fruit resources of the Dominion, whose extent of territory is equal to our own, and much of which is yet to be filled with an enlightened and industrious population. I like the whole book, embracing as it does the "entomological," so closely connected as it is with the successful cultivation of fruits. It is a grand volume, honourable to your society and to the Government.

Yours as ever,

MARSHALL P. WILDER.

#### THE CABBAGE MAGGOT.

DEAR SIR,—On page 235 of the current number of the *Horticulturist* I see a communication from Prof. Cook, of the Michigan Agricultural College, to the *American Agriculturist* on the destruction of the Cabbage and Radish Maggot.

I would like to know (and no doubt many others would be equally obliged if you can inform the readers of the *Horticulturist*) how the bisulphide of carbon is prepared and how applied to the young plants; as the Professor, while giving the formula for the carbolic acid preparation, does not give the formula for the bisulphide of carbon, although he appears to consider it the most efficient for the cabbage fly, as it "destroys the maggot." If it does this it is undoubtedly the best preparation.

I may add that during last spring I tried the carbolic acid, preparing it and sprinkling the plants according to Prof. Cook's directions, with the single exception that I applied it *twice* a week instead of *once*; but found that, although it did not injure the young plants in the least, it utterly failed to keep the flies from depositing their eggs, or to destroy the maggots; consequently my radishes were totally ruined; and my cabbages only partially saved by my gardener going over the patch every three or four days and carefully removing the soil where the eggs had been deposited from around the young plants, and putting fresh soil in the place, a slow remedy, and as the fly season this year was a very long one, an expensive one; and, worst of all, not by any means a certain one, for it is almost impossible not to miss some of the wee white specks, which are consequently left at the stalk of the cabbage and destroy it.

I would therefore like to try the



bisulphide of carbon remedy, and, with the rest of the cabbage growing world, would hail it with rejoicing, if successful in destroying the pests without injuring the plants.

THOS. G. BRIGHT.

Meaford, Oct. 4, 1882.

REPLY BY W. SAUNDERS.

Bisulphide of carbon is made by passing the vapor of sulphur over red hot charcoal in suitable vessels, and consists of one part of carbon united to two parts of sulphur. It is a colourless liquid, with a very offensive odor, very volatile character. It is inflammable, and its vapor mixed with atmospheric air explodes with violence if lighted. It is a powerful solvent, and one of the chief uses it serves in the arts is as a solvent for India rubber and gutta percha. It is usually kept in drug stores. When poured into a hole in the soil, and the orifice closed, the vapour gradually permeates through the spongy earth and destroys insect life. It is, I fear, too expensive to be used as a general remedy for insects, and its inflammability, and the liability of its vapor to explode when mixed with air would deter many from using it.

London, Oct. 10.

#### THE ENGLISH SPARROW.

MR. EDITOR,—I would respectfully suggest that you have for discussion at the next winter meeting the following subject: "Is the English sparrow a friend or enemy of the fruit grower?"

I would suggest that you announce the subject early and ask for papers on the subject from all who are in a position to give light on the subject, to be sent to the Secretary in time for the winter meeting.

My own opinion is that this question is an important one or will soon become so as these little Britons increase, and

I think discussion would bring out a good many points for and against the sparrow.

Yours truly,

WM. E. WELLINGTON.

Toronto, Aug. 7, 1882.

#### EXPLORATIONS IN RUSSIA.

MR. EDITOR,—It will perhaps interest some of your readers to know that there are at present in Europe two enterprising and enthusiastic lovers of fruit from America who are exploring the northern portions of Europe and particularly of Russia, for the purpose of ascertaining what varieties of fruit are successfully cultivated in these extremely cold climates, hoping by this means to find new sorts which will be hardy enough to withstand the rigours of the colder portions of the Northern and North-Western United States and Canada, and thus lay under further tribute the countries which have given to us the well-known apples, Red Astrachan, Duchess of Oldenburgh, Alexander, and Tetofsky. The exploring party consists of Prof. Budd, of the State Agricultural College in Iowa, and Mr. Chas. Gibb, of Montreal. The following post cards have been received from Mr. Gibb:—

"VIENNA, July 22, 1882.—Work interesting, though we have not yet reached the severer climates. Many new apples in England and Germany are in leaf semi-Astrachanic, and some Russian full bloods. Pears in Jardin des Plantes crossed in many cases with northern or southern Chinese forms, cider and cooking pears of Rentlingen, &c. We saw a few thick-leaved *V. vinifera*, two of them as thick as Lindley and one as thick as Concord, from Jura."

"ON THE VOLGA, Aug. 30, 1882.—Here we are in a little boat going down the Volga from Kasan visiting the orchards with a kind Russian friend. The apples now in the market are ahead of our August apples, a fine assortment in size and colour, and some of them fine in quality. The Vladimir Cherry is grown in enormous quantities in that cold climate. Entire trains laden with these cherries leave here for different parts

of Russia. A new dwarf race of hardy plums here of fair quality. Nomenclature very confused here. At Petersburg we find trees and shrubs of country east to the Amoor valuable for our climate, especially the thick-leaved poplars. There are pears of medium quality here hardy enough to grow as far north as the city of Quebec, that is one sort at least. We have had some curious little fruit meetings among the Tartar dealers."

I sincerely hope that the explorations of these enterprising horticulturists will result in the introduction to this country of some new and good varieties of hardy fruits, especially adapted to the more northern sections of our province, and capable as well of being cultivated over the greater portion of the Northern and North-Western parts of the Dominion.

WM. SAUNDERS.

London, Oct. 6, 1882.

#### THE OTHER SIDE.

DEAR SIR,—I have just read in your valuable paper a letter from an Ottawa gentleman praising very highly his success with the Burnet Grape. I was particularly pleased to hear that the Burnet would really bear fruit outside of Mr. Dempsey's grounds, where it originated. About six years ago I visited Mr. Dempsey in the county of Prince Edward, determined to see this new grape as it appeared on the original vine. I was amply repaid for my trouble, first, by the very pleasant visit with Mr. Dempsey and his amiable family; secondly, by seeing the vine, the fruit of which I then regarded as the best I had ever eaten amongst the outdoor grapes, and I am not sure that I have up to the present time had any reason to change my opinion as to the quality of fruit. The vine with Mr. Dempsey seemed to be a good grower and bearer. It was well loaded with fine fruit, which was ripening a little ahead of the Delaware.

I at once determined to have this vine in my garden. The grapes so much resembled its parent on the European side, the Black Hamburg, while it showed none of the objectionable qualities of the Hartford Prolific, the parent on the American side.

The following spring I procured two vines from Mr. Leslie, and two years later procured five more vines. But I am very sorry that I have had no such pleasant experience as the gentleman who writes from Ottawa. While I fully agree with him as to the great superiority of the quality of fruit, I am sorry to say that the quantity has been very deficient. Although this is the fifth year for two vines, and the third year for five others, I have not yet had a single full cluster of fruit. All I have this year from seven vines are two straggling half bunches, while Rogers 44 planted at the same time, and in the row with the last lot of Burnets has several bunches of fine fruit now fully ripe; and the Rochester, a new grape, planted the same time, from Elwanger & Barry, is loaded with fruit, which has already ripened. The Rochester came through the winter as bright as a currant bush, flowered early and set its fruit well, and is now quite ripe. It is only fair to state that none of my vines had any protection last winter, and while the Rochester and Rogers 44 came through unhurt, the Burnets were either killed to the ground or so badly injured that the late starting shoots gave no fruit, but have made a very good season's growth of wood. I shall this season provide the most ample protection for the Burnet by laying it down and covering it with earth. Should it then bear well I shall not consider the trouble too great if I can only obtain the excellent crops of fruit such as I saw grow upon the original vine. But should my efforts fail I

must either discard the vine or learn some other remedy that may prove more efficacious.

In regard to the Rochester it is very hardy and very early; evidently a good bearer. Bunch and berry similar in appearance, but larger and more compact than the Delaware. Ripens well, with very little pulp and sweet to the centre, with some of the peculiar flavour of the Diana. A very good grape, but not equal in quality to some other new varieties that appear equally early and equally hardy.

Rogers 44 I find every way very satisfactory. A rampant grower, hardy, a good bearer, very early ripening, and of excellent quality. I now give my present impression, subject to any modification that longer experience may produce. I have the Lady Washington, the Jefferson, the Bacchus, the Early Victor, and the Vergennes, all growing well, but not yet bearing. Hope to report further at a future time.

D. REESOR.

P. S.—The Creveling bears so little that I think I shall root it out altogether. I am trying also the White Ann Arbor, but it is not bearing yet.

Rosedale, Toronto, Oct. 5, 1882.

#### PAPER BAGS ON GRAPES AND BEES.

MR. EDITOR,—I was victimized last summer to such an extent by the bees and flies that I had not a single bunch of perfect grapes in my vineyard, and without any exaggeration the air was positively tainted by the offensive smell from the grapes rotting on the bunches. I never saw such wholesale destruction.

Expecting another onslaught this season I thought I would prepare myself for the vermin, and purchased 3,000 paper bags made on purpose for preserving grapes from these and other pests.

I noticed several very favourable comments about the bags in *Green's Fruit Grower*, published in Rochester, N. Y., and I also wrote to Messrs. Ellwanger & Barry, of the same place, the celebrated nurserymen, whose reply was also favourable, so I concluded to purchase, but I am sorry to say that the result was not so decisive as I expected; and I found on removing many of the bags lately that the grapes were perfectly green, without any colour or flavour. I would certainly not advise my friends to go into it so thoroughly as I did, as I am satisfied it will result in disappointment, still I shall (D. V.) use some to preserve a part of the crop from the action of frost, by which means the bunches so protected can remain on the vines for several weeks after the main crop has been picked.

This brings up the subject of the power of bees to commit the destruction complained of. If, as contended by interested parties, they are not capable of doing so, how does it happen that *this year there are no bees, with a remarkably fine and perfect crop of grapes?* I have not noticed a single bee around mine, and yet plenty of flies. I have been informed that last winter was very destructive to bees, and this certainly looks like it. So far as their power to sting and suck the berries without any other insect making an incision for them, I can only say that I have repeatedly watched them doing so. I am borne out in this by my friend, J. C. Rykert, Esq., M.P., and others of my horticultural friends, to whom I could refer if necessary. And now, my dear sir, excuse my taking up so much of your valuable time, and allow me on behalf of myself and the horticultural world generally, to thank you for your unwearied exertions and the talent you have displayed in conducting the *Canadian Horticult.*

tourist for so many years, a magazine that has been of the greatest service in developing the horticultural taste of its readers. May you be spared for many years to give us our monthly treat, and may your readers learn to appreciate the sacrifice of your time and talents for their benefit.

Very truly yours,

JAMES TAYLOR.

Yates Street, Oct. 5, 1882.

#### GRAPES FOR PROFIT.

Inquiry is being made for those varieties of grape which will give the best cash returns to the planter. The writer has been at some pains to make inquiry of fruit dealers concerning the prices paid by consumers and the varieties most in demand, and learns from them that the early grapes are always readily sold at good prices. In confirmation of this a gentleman mentioned that he had twenty-two vines of the Champion; and that he took the fruit from them to Toronto and realized for it forty dollars. Fruit dealers in St. Catharines are selling Delaware and such of the Rogers' varieties as are to be had, at from eight to ten cents per pound, retail; and Concords at five cents. Jessica, an early white variety, was sold at ten dollars per hundred pounds to Toronto and Cobourg fruiterers. The white and red varieties seem to be the most popular, commanding a ready sale at the best prices. The red varieties of the Rogers grapes, known as Agawam, and Lindley, seem to be the best of this colour; while Wilder and Merri-mack take the lead among the black varieties. There is not as yet enough of Moore's Early grown in Canada to enable one to ascertain the estimation in which it is held here, but Sands, Furber & Co., of Boston, write that they sold several tons of it at twelve to thirteen cents per pound wholesale

previous to the 19th of September. The Brighton is a very fine red grape, of excellent quality and prolific, but has not yet been placed upon our market in sufficient quantity to be generally known.

These facts may be of some value to those desiring to plant for market, who will have to take into consideration not only the price to be obtained, but the health, vigour, hardiness, and productiveness of the vine in their several localities.

#### RASPBERRIES AND BLACKBERRIES FOR PROFIT.

*Reliance*.—A large, purple red, moderately productive berry. It is of good flavor, looks well in the box, and the cane is quite hardy and a good grower.

*Early Prolific*.—This is a very good berry, but it is less prolific than the *Reliance*, and so offers but few inducements for planting.

*Highland Hardy* is a hardy, very early berry, of good color and quality, but only moderately productive. Still it is considered worthy of culture because of its earliness. It ripens earliest of all, and the canes may be cleaned in a few days, and all the berries sold at a high price; hence it is about as profitable as much more prolific varieties which ripen later.

*Turner*.—They are very hardy, but in productiveness fall considerably below two or three other sorts. The berry is a handsome bright red, of excellent quality, but not of the greatest firmness.

*Brandywine*.—The canes are hardy, vigorous and very productive. The fruit is of good size, good color, fair quality and firm.

*Cuthbert*.—It is probably the latest variety of good red raspberries we have in cultivation. The canes are large, and the foliage luxuriant. The fruit

is of the largest size, conical in form, quite firm, of excellent flavor; a light brilliant crimson when first ripe, becoming a darker crimson, or cherry color, when over-ripe. We consider this a slight demerit, for in a large plantation a portion of the fruit will necessarily be over-ripe when gathered, and a box with a portion of the fruit cherry-colored, will not look so attractive as if all were of a light crimson, or bright scarlet. With this demerit, however, we think the Cuthbert now stands at the head of the list of profitable red raspberries. If any variety can successfully dispute its pre-eminence, it is the Brandywine, which can not be dispensed with, on account of its earlier season. As it presents itself to us, Highland Hardy, Brandywine, and Cuthbert, are the three desirable varieties of red raspberries for a succession through the season.

#### BLACK-CAPS.

*Gregg.*—The Gregg as is now generally well known, is a firm dry berry, yielding the largest percentage of dried fruit in the evaporator. As a table fruit we should prefer the Mammoth Cluster.

#### BLACKBERRIES.

*Agawam.*—This is in some respects the best market blackberry cultivated. While it is a hardy, vigorous grower, and very productive, the fruit is large and sweet all the way through. It is a little inferior in size to Lawton and Kittatinny, and perhaps not as high flavored as those varieties, when at their best, but, as picked for market, it is wholly exempt from that sour core so well known in the Lawton, and is soft and sweet all the way through.

*The Ancient Briton* is a very vigorous, hardy, prolific cane, and the fruit is nearly the size of Agawam. We think there is a little more of the wild blackberry flavor in it than in any other of the cultivated sorts.

*Snyder* is now pretty well known. In productiveness, it really excelled any other, the loads of fruit on the canes were just marvellous, and worth walking a great way to behold.—*American Rural Home.*

#### THE "JAMES VICK" STRAWBERRY.

A few Rochester horticulturists were invited to see the new strawberry James Vick in bearing. W. C. Barry, late President of the Nurseryman's Association; P. C. Reynolds, long Secretary of Western New York Horticultural Society, and horticultural editor of the *American Rural Home*; the Vick Brothers, representing the firm of James Vick; John Charlton and Josiah Salter.

They were first shown rows of the new strawberry from plants set late the previous fall, growing in the same bed with Manchester and Bidwell. The new berry showed twice the fruit of either Bidwell or Manchester, and more vigor of plant. The party were next shown a plat of about one-fourth acre, not manured for many years, common farm soil in the midst of a field of twenty acres of fruit, on which the new strawberry had been permitted to form wide and thick matted rows for the purpose of multiplying plants, from the whole of which plants had been dug a few months previous, tearing and loosening the roots of those remaining. The soil was packed hard and very weedy, showing evidence of neglect, yet under such adverse circumstances, which would lead one to expect no fruit worth gathering, the plants were thickly studded, and the rows fairly ablaze with large, beautifully and evenly colored, firm and shapely berries of superior quality. From this bed was subsequently picked the largest yield of fruit ever gathered from any variety on this fruit farm. Mr. W. C. Barry said that of all the new strawberries he had tested, this

was the most promising. He described the color as bright scarlet turning to crimson, surface glazed, seeds on surface, season medium, quality good. All the party expressed themselves highly pleased with the display of fruit, and ate it with a good relish. The plant is vigorous, with large glossy dark green foliage, the blossoms hermaphrodite (or perfect), the fruit handsome, large, luscious, firm, and in great abundance.

The party returned to Rochester, and were invited to visit a small plantation there of the *James Vick* fruiting under hill culture, the rows lying between bearing grape vines, not the most desirable position as the grape roots must have occupied the entire soil. Here a sight met their eyes that they could not have anticipated, and such a display as probably was never before made by any strawberry. The stools were large and vigorous, and around each was a pyramid of ripe berries piled one on another like a walled fort, and so thick together that a bug could hardly have crawled into the enclosure made by the fruit without climbing the barricade. Berries on every plant were "uniformly of good size," as was remarked by Secretary P. C. Reynolds. The fruit stems were long and stout, but could not sustain the great burden imposed upon them (often 12 to 18 ripe berries on one fruit stem), thus the fruit rested one berry on another in a circle about the plant.

The news soon spread among the lovers of fruit of the city, and early next morning our leading pomologists came to inspect the newest wonder. After these came the younger enthusiasts, the foremen, and others who desired to see for themselves if half were true that had been told them.

Mr. Charlton said that as soon as the Norfolk (Va.), and other large strawberry planters learned of the value of

the *James Vick* for market, and shipment, the demand would be something wonderful.

The following is from the Geo. A. Stone nursery, Rochester, N.Y.:—"Dear Sir: I saw the *James Vick* today at Rochester. It would certainly seem to possess *all desirable qualities*. It is very prolific, firm of texture, and of fine flavor."

Geo. S. Wales, the Bannockburn nurseryman, said he had seen nothing equal to the *James Vick*.

Secretary P. C. Reynolds, of Rochester, N.Y., considers the quality of *James Vick* very good, and well suited to his taste, which is exceedingly critical. With possibly one exception he has not seen anything to equal it in productiveness. He considers it more productive, larger and of better quality than the Manchester.

We sent fruit of the *James Vick* to Mr. J. T. Lovett, over 300 miles distant, and he reports that it came in fine condition. As a shipping variety it is particularly desirable.

THE POINTS OF MERIT  
of the *James Vick* are briefly:

(1) Fine quality, unusual vigor, and hermaphrodite (or perfect) blossoms.

(2) Color, form and firmness of berry, which approach the ideal. No white tips, no coxcombs.

(3) Ability to stand on the vines a week after ripening, without becoming soft, or rotting, or losing quality or much lustre. Instead of softening it shrinks a trifle, and becomes firmer than when first ripe.

(4) Uniformly large size, and productiveness unequalled by any other variety. Two hundred and eighty berries were counted on one average plant, and from one row about 100 feet long nearly two bushels of berries were gathered.—*Green's Fruit Grower*.



CUT OF STRAWBERRY "JAMES VICK." THIS REPRESENTS ONE PLANT WHICH BORE 280 BERRIES.

### THE MANCHESTER STRAWBERRY.

We have had a favorable opinion of this new variety from the first, believing it to be well adapted to general field or garden culture, but particularly for market, or wherever firmness and productiveness are desirable. No one can tell positively how it will do in various soils, but reports have been given from men like Peter B. Mead, President Collins, E. P. Roe, Wm. Parry, J. G. Burrow, J. H. Hale, and others entirely disinterested, proclaiming the Manchester, grown on light sea sand, on which the weeds can scarcely survive, as compared with Wilson's Albany, thus far superior. It averages one and a half times the size. It is of much better flavor. It is far more attractive with its bright scarlet color, and finer in appearance. The plant is double the size and far more vigorous. It carries the fruit higher from the ground. The yield, as it appears, is one-half more. In firmness it fully equals the Wilson.

The commission men who have handled the Manchester for three years, report that from its large size, bright color, fine appearance and firmness, it invariably commands high prices. Further, it keeps its color the best of any berry, and "stands up" well. They do not hesitate to "keep it over," and have at different times, when there was a glut in the market, kept it until the second day, when it would present a finer appearance and sell readily at better prices than could possibly have been obtained when it came into market.

Mr Peter B. Mead, the venerable horticulturist and co-worker with Chas. Downing, says; "In this I think the strawberry has been discovered that has long been sought for. I have never seen a strawberry that in all respects impressed me so favorably."

The Strawberry is one of the most enticing and beautiful of all the gifts of

the great Creator, thus the efforts to improve it are never ceasing. Wonderful progress has been made within the past few years, but the end has not yet come; the work has only fairly begun. We have strawberries large and vigorous enough—we now want firmness and quality, and those fruiting much earlier and later. We give the Manchester a hearty welcome.—*Fruit Grower.*

### BLACK RASPBERRIES AND BLACK-BERRIES.

There is room for extension in the culture of these two species of small fruits. Black raspberries are easy of cultivation—nearly as easy as potatoes—as, if planted in rows each way, six feet by three, nearly all the culture can be done by horse and cultivator or horse-hoe. They are not only easy of culture, but it looks as if there would be a large demand for them, both in the green and dried condition, and at rates that will leave the grower some profit. Dried raspberries are a favorite dried fruit and when the market is extended over the world, the demand must be enormous, and the price of the dried fruit must be considerably lower than it has ever yet been not to compensate for the cost of growing.

As for profitable varieties, we have been favorably impressed with the Tyler for an early one. We saw a large plantation on the grounds of Robert Johnston, near Shortsville, Ontario county, and the canes were remarkably vigorous. He informed us that the canes are very hardy, passing through the winters without injury, that they ripen the earliest with the exception of Davison's Thornless; that they are very productive, and of a dead black color, no bloom. They are also of excellent quality, with fewer seeds than most other black-caps.

The *Gregg*, is a vigorous grower, with a very strong cane, and a marvel in



production. Mr. Weeks, of West Webster, informed us that he planted 304 plants in the spring of 1881. That at the first picking this season he picked 96 quarts, and that at the second picking he picked twice that amount, or 288 quarts in the first two pickings from only 304 plants. Mr. Johnston had found them very prolific, and like accounts come from every direction.

With these two varieties the season of black-caps may be extended over several weeks, and the evaporators kept running upon them until blackberries are ripe.

*Blackberries*—We are not certain that this fruit can be grown so as to evaporate with profit, yet we are not certain that they may not, if such prolific varieties are planted as we have seen in bearing this year. We have mentioned the Snyder, Ancient Briton and Agawan, as growing on the grounds of Mr. C. M. Hooker, near Rochester. We certainly think they could be grown at pretty low rates if in demand for evaporating.

On Mr. Johnston's grounds we saw the *Western Triumph*, on much weaker soil than Mr. Hooker's, but scarcely less productive. It is much hardier, even, than the Snyder, having stood the winter where the latter froze down. The canes are perfectly loaded down with fruit, which is of good size, nearly round, and sweet all the way through. It is not only sweet, but the seeds are small and not at all prominent. While the Lawton, Kittatiny and Early Wilson are larger, and when dead ripe of exquisite flavor, they are very liable to be winter-killed; and when picked (as they usually are for market) as soon as black, are hard and sour, and have done much to bring the blackberry into disrepute as a market berry.

Mr. Johnston also grows the *Knox*, which is quite hardy, and very produc-

tive. It is later than *Western Triumph* and was unripe. We found growing in the Knox plantation, occasional hills of a blackberry unknown to us, that was very delicious. It was of good size, longer than *Western Triumph*, soft, and of very high flavor.—*Rural Home*.

#### HANDLING APPLES.

J. S. Woodward, a large fruit-grower of Niagara county, N. Y., furnishes the following to the *New York Tribune*:—

"Apples always, whether in barrels or piles, when the temperature is rising so that the surrounding air is warmer than the apples, condense moisture on the surface and become quite moist and sometimes dripping wet, and this has given the common impression that they 'sweat,' which is not true. As they come from the tree they are plump and solid, full of juice; by keeping, they gradually part with a portion of this moisture, the quantity varying with the temperature and the circulation of air about them, being much more rapid when first picked than after a short time, and by parting with this moisture they become springy or yielding, and in a better condition to pack closely in barrels; but this moisture never shows on the surface in the form of sweat. Keeping apples very much depends on the surroundings; every variation in temperature causes a change in the fruit, and hastens maturity and decay, and we should strive to have as little change as possible, and also have the temperature as low as possible so the apples do not freeze. Some varieties keep much better in open bins than others; for instance, the Greening is one of the best to store in bins. A very good way for storing apples is to have a fruit-room that can be made and kept from 32 deg. to 28 deg., and the air close and pure; but the apples in slatted boxes,

not bins, each box holding about one barrel, and pile them in tiers so that one box above rests on two below, and only barrel when ready to market; but this is an expensive way, and can only be practiced by those with limited crops of apples, and it is not at all practicable for long keeping, because in this way they lose moisture much more rapidly than when headed close in barrels, and become badly shrivelled.

"All things considered, there is no way of keeping apples quite so good and practicable as packing in tight barrels and storing in cool cellars; the barrel forms a room within a room and prevents circulation of air and consequent drying and shrinking of the fruit, and also lessens the changes of temperature, and besides more fruit can be packed and stored in a given space. The poorest of all ways is the large open bin, and the objections are: too much fruit in contact; too much weight upon the lower fruit; and too much trouble to handle and sort when desirable to market. It was formerly the almost universal custom in western New York to sort and barrel the apples as fast as picked from the trees, heading up at once and drawing to market or piling in some cool place till the approach of cold weather, and then putting in cellars. By this method it was impossible to prevent leaves, twigs and other dirt from getting in, and it was difficult to properly sort the fruit, and if well sorted, occasionally an apple, with no visible cause, will entirely and wholly rot soon after picking. Some varieties are more liable to do this than others, but all will to some extent; this occurs within a week or ten days after picking, and when barrelled these decayed apples are of course in the barrels, and help to decay others. Although packed ever so well and pressed ever so tight, the shrinking of the fresh picked fruit soon

makes them loose, and nothing is so bad in handling apples as this. Altogether this was a very untidy method of handling apples, and has been entirely abandoned for a better.

"The very best method depends a good deal upon the quantity to be handled; if only a few hundred barrels they can be put in open barrels and stored on the barn floor. Place empty barrels on a log-boat or old sled; take out the upper head and place it in the bottom of the barrel; on picking the apples put them without sorting directly into these barrels, and when a load is filled draw to the barn and place in tiers on end along one side of the floor; when one tier is full lay some strips of board on top and on these place another tier of barrels; then more boards and another tier; two men can easily place them three tiers high, and an ordinary barn floor will in this way store a good many barrels of apples. Where many hundreds or thousands of barrels are grown, it is a good plan to build houses or sheds in convenient places in the orchards for holding the apples as picked; these are built on posts or stones about one foot from the ground. The floors, sides, and ends should be made of strips about four inches wide and placed one inch apart, and the roof should project well on every side. The apples, as picked, are drawn to these in boxes or barrels and piled carefully on the floors about three feet deep. Where these houses are not provided, the next best way is to pile the apples, as picked, on clean straw under the trees in the deepest shade to be found.

"After lying in any one of these positions about ten days, they should be carefully sorted and packed in clean barrels, placing at least two layers on the bottom of the barrels, with stems down; after this fill full, shaking moderately two or three times as the filling

goes on, and with some sort of press, press the head down so that the apples shall remain firm and full under all kinds of handling. Apples may be pressed too much as well as too little. If pressed so that many are broken, and badly broken, they will soon get loose and rattle in the barrels, and nothing spoils them sooner than this. What we want is to have them just so they shall be sure to remain firm. Careful shaking so as to have them well settled together, has as much to do with their remaining firm as the pressing down of the head. After the barrels are filled and headed they should at once be placed on their sides in a barn or shed, or in piles covered with boards from sun and rain, or if a fruit house or cellar is handy they may at once be placed therein; the object should be to keep them as cool and at as even a temperature as possible. In all the operations of handling apples, from picking to market, remember that carelessness and harshness always bruise the fruit, and that every bruise detracts much from its keeping and market value; and always remember that 'honesty is the best policy.'

#### THINNING FRUIT.

It is the tendency of every well cultivated, healthy fruit tree, to set more fruit than it can perfect or bring to a good size. This is especially true of pears, and if large, well ripened fruit of this kind is desired, the fruit must be thinned out well, commencing when the fruit is the size of hazel nuts, again when they are about half grown, and again a couple of weeks before maturity. The latter "thinning" is frequently marketed, furnishing the "small boy" with cramps and cholera, and the doctors with business. In thinning out the fruit, do the work carefully, removing the smallest and imperfect ones only, and not like an Irishman we once

had who commenced with the largest ones, "to give the little ones a chance." The thinning should be done only by hand, for jarring the trees, especially the pear, is apt to work injury in many ways, and too often brings down the best and heaviest fruit, which should remain.—*Farm and Garden.*

#### GREEN PEAS.

TESTS WITH THE LATEST ENGLISH NOVELTIES.

Several years ago the *Rural New Yorker* tested 27 different kinds of peas—most of them well-known—and now reports upon tests made the past season with 14 different kinds. The seeds of most of them were procured from the originators or introducers in England, the older kinds being raised beside them for purposes of comparison as to yield, productiveness, habit, etc.

The soil, a clay loam, was well fitted by spading and raking, and manured with chemical fertilizer at the rate of 400 pounds to the acre and a light dressing of hen manure and muck. The peas were planted two inches deep, two inches apart, in drills three feet apart.

The object in planting the Old Philadelphia beside Landreth's Ex. Early, was to determine how much improvement the latter, which is now one of the most popular of the earliest class, showed over the former from which many of the earliest peas of to-day have sprung.

The object in planting the Little Gem beside the American Wonder, was to note differences which had previously seemed a little obscure.

The object in planting both the Telephone and Telegraph was to ascertain, by more careful observation than had been made in tests of three years ago, whether there were any marked differences between them. All were planted (by hand) April 3rd.

*Landreth's Extra Early.*—June 18th there were more peas upon this variety fit to be picked than upon any other. The first mess was gathered June 21st, when a few were also picked from Laxton's Earliest of All. The vines grew a little over three feet in height. They branch very little, are rather slender and average seven to eight pods to the vine. This strain is evidently carefully selected—the vines growing to a uniform height and maturing the fruit as nearly all at once as it seems possible for any variety to do.

On June 26th, 200 pods were picked which weighed 33 ounces—contained 1,202 seeds which weighed 13 oz.

*The Old Philadelphia Extra Early.*—This proved to be, with Laxton's Earliest of All, the second early. In point of earliness we could note no difference between the two. The first picking was made June 23rd, and at the same time a few were ready to be picked upon the American Wonder and Wood's Ex. Early. The vines are strong, not much inclined to branch and grow 3½ feet in height.

June 26th—200 pods weighed 32 ounces, which contained 970 seeds which weighed 10 ounces:

*Laxton's Earliest of All.*—This pea was extensively advertised in England last year as the earliest pea known. It was no earlier than the Old Philadelphia. The vines grow a little over three feet and are notably slender and never branching, and bear seven pods to a vine. The variety has been carefully selected. All the vines grew to the same height, were uniformly productive, maturing to the tops nearly at the same time, so that the entire crop may be taken off before wrinkled peas are ready and the ground be prepared for later crops. The same, however, may be said as to the Philadelphia, Landreth's, American Wonder, etc.

On June 26th, 200 pods weighed 32½ ounces—contained 1,300 seeds which weighed 12 ounces.

*Wood's Extra Early.*—An excellent variety maturing with Philadelphia, from which it is distinguishable by a more vigorous growth of vine. It also grows one foot taller.

June 27th, picked 200 pods which contained 1,020 seeds weighing 14 ounces. The pods (fruit entire) were not weighed.

*American Racer.*—The vines grew to the height of five feet. The pods which formed near the ground were ready to pick June 25th, though those immediately above were quite immature. Still higher up the blossoms had not yet set, while at the tops of the vines the flowers were not even in bloom. July 2nd, were picking them from within a foot of the top. The tips of the vines were then in bloom while just beneath were many young pods. The last picking was made July 10th, which was 16 days after the American Wonder was in bearing, and other wrinkled peas, such as the Telephone, Edinburgh Beauty, etc., were in use. As to quality, there is very little choice between the smooth kinds; provided they are in the same stage of maturity and cooked just alike it is hard to detect any differences. It is very evident that nobody wants a smooth pea when he can get a wrinkled pea. The peculiarity of the Racer, that it is in use a long time, is therefore no great merit. On the one hand, we have earlier peas—as Daniel O'Rourke, First and Best, Philadelphia, Landreth's Extra Early, etc., and, on the other, peas very much better in quality.

The Racer bears an average of 14 pods to a vine, each pod having from five to seven peas, never over eight. The pods are well filled.

June 27th, picked 200 pods which

contained 1,090 seeds weighing 14 ounces.

*African Wonder*.—The vines grow from six to eighteen inches high, depending upon the soil and situation. The stems are strong, needing no support and generally branch near the surface of the soil, the branch bearing from two to four pods—the entire plant from ten to fifteen.

On June 26th, picked 200 pods, which contained 954 seeds which weighed 10 ounces.

The Wonder, besides being of the first quality, is within two or three days as early as any of the smooth kinds. This, to the vigilant gardener is of the first importance, and may determine a loss or profit upon his main crop. But for home use, sow sparingly of the smooth kinds and trust to the Wonder for the bulk of earliest peas. There is all the difference in sweetness between smooth and wrinkled peas that there is between sweet and field corn.

*McLean's Little Gem*.—This is scarcely less prolific than the Wonder, and the quality is much the same. But the vines grow taller under the same conditions and it seems to be about one week later. The pods average fewer seeds, while the seeds average larger.

July 1st, picked 200 pods which contained 720 seeds, weighing 10½ ounces.

*Telephone*.—Vines very strong, growing four feet high, averaging 18 to 20 pods to a plant. Its branches considerably, the branches bearing from three to five pods. The pods average six to seven large wrinkled seeds of the first quality. First picking July 4th.

July 9th, picked 200 pods which weighed 66 ounces, contained 1,320 seeds weighing 28½ ounces.

*Telegraph*.—Vines very strong, growing four feet high, averaging 16 to 18 pods to a vine. The vines branch, each branch bearing three to five pods.

The pods average six to seven large, wrinkled seeds of the first quality. First picking July 4th.

July 9th, 200 pods weighed 65 ounces, contained 1,332 seeds which weighed 28 ounces.

*Edinburgh Beauty*.—Vines strong, two to two and a half feet high. Each seed usually sends up two main stalks, each of which branches freely. There are often 50 pods from a single seed. Almost invariably two pods to every fruit stem—i.e., the pods are borne in pairs. Peas (seeds) of large size. They are darker when cooked and not quite as sweet as the next—inferior to the Telephone or Telegraph in quality.

July 10th, 200 pods weighed 30½ ounces, contained 870 seeds which weighed 18½ ounces. Considering the height of the vines, their wonderful fruitfulness, and the large size of the peas, (seeds), this is a remarkable variety.

*Dean's Dwarf Marrow*.—Vines very strong, two to two and a half feet high—15 to 20 pods to a vine. Small pods for marrows, though larger than those of the Edinburgh Beauty. Much branching; uniformly large seed; often two pods to each peduncle. When cooked they are of a very light green color, sweet, but not quite so tender as Telephone.

July 10th, 200 pods weighed 40 ounces, contained 1,108 seeds which weighed 24 ounces.

*Carter's Stratagem*.—A remarkable variety. Vines very strong and needing but a little support. Twenty pods to a vine. The vine branches just under the surface of the soil, two stems generally of equal vigor growing to a height of 2 to 2½ feet. The pods are generally borne singly.

July 11th, 200 pods weighed 80 ounces, contained 1,420 seeds which weighed 42 ounces. The quality is

excellent. It will be seen that this gives the greatest number and weight of seeds to a pod as well as the largest pods. Still, it must not be overlooked that whereas this averages but 20 pods to a vine, the Edinburgh Beauty, for instance, bears 50.

*Pride of the Market.*—Vigorous vines two feet high, branching laterally only. Notes as to quality missing.

July 12th, 200 pods weighed 64 ounces, contained 1,388 seeds which weighed 32 ounces.

#### REMARKS.

What is gained either to the market or home gardener by raising varieties of peas that grow five feet high, when other kinds growing from two to three feet high will yield more peas of as good a quality? Compare, for example, the old and favorite Champion of England with Carter's Stratagem.

Why should we sow smooth peas, which are always of inferior quality, when varieties of wrinkled peas may be sown, which are of the first quality and will yield just as well?

Upon the south half of the pea test-plot, salt at the rate of nine bushels to the acre was sown broadcast. There was no difference in germination, growth or yield that could be discovered!

#### SHOULD CONCENTRATED FERTILIZERS BE DRILLED IN OR SOWN BROADCAST?

If the most rapid growth from seed is desired the manures and seed should be drilled together; in this case, however, the manure should be confined to superphosphate alone, as almost all other artificial manures are injurious to very young plants. Our turnip crops suffer greatly from a small fly, which eats off the leaves as they start from the ground. We mix the seed and superphosphate

together, and push the plant through its early stages with great rapidity; This is, therefore, a special case for a special object; and for all other cases I should recommend sowing manures broadcast as evenly as possible over the whole surface of the soil. Roots follow the food. If you place the food in one place, the roots will concentrate there, consequently they will not have as much command of the moisture of the soil as they would have if spread all over the soil. Except, therefore, in the case of superphosphate with turnips the whole of our manure was sown broadcast, and plowed or harrowed into the land before the seed is sown. With Autumn-sown wheat we apply salts of ammonia and nitrate in the Spring.—J. B. LAWES, in *Rural New Yorker*.

#### AMONG THE RASPBERRIES

It has been my good fortune during the present week to enjoy a run through two of the leading small fruit nurseries and gardens in the region near New York City—those of J. T. Lovett, at Little Silver, N. J., and Rev. E. P. Roe, at Cornwall-on-the-Hudson.

The raspberries, both the red varieties and blackcaps, were in the height of perfection, and it afforded an excellent opportunity to consider the merits of the various sorts that were growing both in the nursery rows, and in the fields in which the pickers were at work. I was particularly pleased with the "exhibition plats" which were found at Mr. Roe's place. Here the different varieties, old and new, were brought together side by side in short rows, and under the same circumstances of soil and culture they offered an accurate and rapid means of comparing and contrasting the varieties. At a glance, the comparative vigor of the canes can be seen, and the relative production of the kinds, size of berries, color, &c., as

they stand side by side are very evident. This method of testing the varieties cannot be too highly recommended, and each grower of small fruit stock should have a portion of his ground devoted to this experimental work.

Among the blackcaps that looked the most promising was the Centennial Black, an early variety and one of the best, the quality being fine and well suited for marketing. The Seehauken is one of the new comers, and has the important point of being early, in quality it is not far from the old Doolittle. The Mammoth Cluster was in its prime with its full clusters of large plump berries. This variety comes very close to the Gregg, which is quite generally accepted as leading in the race of the blackcaps. The Gregg is somewhat larger than the Mammoth Cluster, has more bloom upon the berries, but in productiveness, quality, and fitness for marketing—that is firmness—there is no great difference. One could not go amiss by selecting the Centennial Black for the early sort, and the Gregg for later fruiting.

At Mr. Lovett's I found the pickers doing a profitable business among the Turners—one of the vigorous varieties of the red sorts, bearing an abundance of fruit of good flavor, though lacking in firmness, and therefore needing care in marketing. The Reliance is also a vigorous grower, very productive, and the dark berries are of more than average quality. Its growing near the Belle de Fontenay (or Henrietta) made a comparison between the two easy, and the differences are far from striking. The Herstine is one of the earliest of the reds, and being quite soft is unfit for marketing, but one of the best varieties for family use, to be eaten as soon as picked. Mr. Roe had the Christine, a new sort which is very late, a few of the most forward berries being

ripe. It was not a fair trial, but the flavor of those tasted was not equal to some of the others.

The berry, of all the varieties of red raspberries, is undoubtedly the Cuthbert, it having so many of the important qualities of this small fruit. The vines are wonderfully vigorous, standing far above all its competitors in the "experimental plot," and very productive. The berries are large, and what is of most value in a money point of view, they are firm, making it suitable for shipping to a considerable distance. The quality of the berry is high, and withal, the Cuthbert must stand at the head, purely on its merits. The Patrician is a larger berry than the Cuthbert—in fact it is the largest of the "reds." It being something quite new, more time must be given it before its place can be assigned. From the vigor of the vines, the large size of the berries, its productiveness—to judge from the few canes which were seen—and fineness and flavor of the fruit, this variety will stand high. Its origin is not known.

Of the light-coloured varieties, the Brinckle's Orange is still the type of excellence among all raspberries. Next to it, among those of the same shade of color, comes the Florence, it being a profuse bearer, and the fruit rich in flavor and fair to look upon.—*Country Gentleman.*

**FERTILIZERS FOR HOUSE PLANTS.**—When plants are in a growing state they may be stimulated by the use of guano water. A small teaspoonful of Peruvian guano dissolved in a pailful of rain water is strong enough; water the soil with this once, or at most twice a week. The Water of Ammonia (Hartshorn) of the shops is about as good, and can be had everywhere. If of ordinary strength add a fourth of an ounce (two teaspoonfuls) to a gallon of water, and use as above stated.—*American Agriculturist.*

## TREE PLANTING.

This is a good, old-fashioned expression that all may understand, but is it high-toned enough to suit the advance of to-day? No! not by a great deal. It must be called Forestry, to coincide with modern taste and fashion. So let it be, say all the truly interested, for though the mere planting of a tree, or even of a row of trees, or of an avenue along the public highway, be but a small beginning of the art of forestry, still it is a beginning, and so are the institution of an Arbor-Day by State authority, and the planting of memorial trees upon that or upon any other suitable day.

The setting-out of a little tree by every child connected with our glorious common schools, either upon the school lot, at their homes, in the parks, or on the public highway, cannot fail to exert a most happy influence upon the individual and upon the community where it is practiced. The child (who is father to the man) thus learns to love and respect these noble representatives of the vegetable kingdom. Those who have witnessed the planting of, or afterward enjoyed the comfort and pleasure afforded by, these shade-trees, though never before appreciating these objects either in their financial, economic, sanitary, or æsthetic aspects, are now obliged at least to pause in their career of indifference, or perhaps even of destructive feelings toward trees. The establishment of tree planting societies and village improvement associations cannot fail to benefit all those who are engaged in them, and the general public reaps the benefit of their efforts to embellish and improve the country.

Many thousands of people in the State of Ohio were induced to plant roadside trees in consequence of the Governor's proclamation making Arbor-Day a public holiday, and this was

suggested by those who were making arrangements for the first meeting of the Forestry Congress at Cincinnati, which instituted the extensive planting of Presidential, Pioneer, Heroic, Authors', Teachers', and other groves on the beautiful hilltops of Eden Park—within the city limits. Every child who participated upon that occasion, or who aided, and witnessed the tree planting in the school-house lots scattered through the country, and along many of the thoroughfares, may thus have been made an incipient forester, and will at least have learned to look upon a tree with increased respect. In many of the country school lots the trees bear the names of the pupils who planted them.

Though not forestry, all these efforts have their use, and they exert a most happy influence upon the people by directing their attention to the subject. They help to familiarize us with trees; they direct our attention to the great subject of true forestry, and thus become valuable means of making the people better acquainted with the possibilities of the forestal wealth which should exist in our country.

In a large portion of our land nature has already provided us a most noble heritage of trees, many of them of great value, and only after these had been removed, and the native woodlands were robbed of their most valuable numbers, do we, the immediate descendants of the wood-chopping, timber-destroying pioneers—only then do we begin to realize our loss and to think of the absolute necessity for restoring the forests.

There are so many solid and substantial reasons for the conservation and, where necessary, the replanting of areas of woodlands, it is surprising that so intelligent a people as we proudly boast ourselves to be, should have allowed the country to reach the very verge of



destitution before attempting to restore the woodlands.—DR. JOHN A. WARDER, in *Rural New Yorker*.

#### SMALL FRUITS FOR THE FARMER'S TABLE.

The established fact that the cultivation of small fruits is neglected to so great an extent by farmers as a class, seems the more difficult to understand when, with so little effort our tables can be supplied with an abundance of the choicest and the best. But instead, many, if not a majority of farmers, in possession of hundreds of acres, seem content with a few of the native sorts that can be gleaned from the fence corners, by-ways &c., when a few plants of some of the tried and popular varieties planted near at hand would furnish an ample supply for a large family during the entire season. My unpretentious one hundred Gregg raspberry plants, ordered from a reliable and trustworthy nurseryman, and planted one year ago last spring, have afforded us a liberal allowance for the table, canning purposes, &c., besides supplying the wants of many of our neighbors. The bushes, when heavily laden with rich and luscious berries, were greatly admired by all, the ladies particularly being enthusiastic in their praise, all expressing their determination to endeavor to have plants set the coming spring. And when we consider that it is but little more trouble to plant and cultivate a row of berry bushes, than one of corn or potatoes, it seems all the more unaccountable that so many farmers are loth to engage in the cultivation of these smaller fruits that afford so many luxuries and conduce to so great an extent to the happiness and health of the family.

One of our largest and most success-

ful farmers, after having driven nearly three miles, expressed great disappointment at my not being able to furnish him with the three or four quarts required for the tea-table, while threshing, when a row of Gregg's skirting one side of his garden, would have furnished an abundance that the ladies could have picked at their leisure, while with a liberal sandwiching of the red Cuthberts, they could have been made even more palatable. Let us then plant liberally of these smaller fruits that will tend so much to lessen the care and anxiety of those who are expected to furnish a variety for the table three times each of the three hundred and sixty-five days of the year.—IRVING D. CLARK, in *Rural Home*.

#### LITERARY NOTES.

The *Ladies Floral Cabinet*, New York (\$1.25 per annum), in its October issue presents some choice reading for lovers of flowers. It opens with a timely editorial on "Annuals," followed by another on "Soils," both of which must command attention. The full page illustration of that singular plant, the "Stenotaphron," will attract attention from those who enjoy rare things in the plant world. The recent success with out-of-door blooming of the "Victoria Regia," gives fresh interest to the article on that wonderful Water Lily and numerous minor articles amply repay those who seek information regarding the progress being made in floriculture. The literary and household departments are not by any means neglected, and have fresh and bright, as well as useful articles. Several illustrations brighten the beautifully printed pages. The new management certainly are "pushing" things in the interests of their readers, giving more matter and better than ever, in the long career of this popular "Home Companion."

## MORNING GLORIES.

BY FRANCIS P. GAGE.

They said, "don't plant them, mother, they're so common and so poor,"  
But of seeds I had no other, so I dropped them by the door;  
And they soon were brightly growing in the rich and tending soil,  
Stretching upward, upward, upward, to reward me for my toil.

They grew all o'er the casement, and they wreathed around the door,  
All about the chamber windows, upward, upward, evermore;  
And each dawn, in glowing beauty, glistening in the early dew,  
Is the house all wreathed in splendor, every morning bright and new.

What if they close at midday, 'tis because their work is done,  
And they shut their crimson petals from the kisses of the sun,  
Teaching every day their lesson to my weary, panting soul,  
To be faithful in well-doing, stretching upward for the goal.

Sending out the climbing tendrils, trusting God for strength and power,  
To support, and aid and comfort, in the trying day and hour,  
Never spurn the thing that's common, nor call these home flowers poor,  
For each hath a holy mission, like my Glory o'er the door.—Selected.

## DOMESTIC RECIPES.

**FLY POISON.**—Boil one-quarter of an ounce of small chips of quassia in one pint of water; add four ounces of molasses. Flies like it, and it will destroy them.

**BRETFROOT PICKLES.**—Simmer the root, till about one-third cooked (from one and a half to two and a half hours); take out and peel, and cut in thin slices. Place in again, and pour on sufficient cold spiced vinegar, made as above, to cover them.

**CHLORIDE OF LIME**, when used as a disinfectant about the rooms of a house, should be dissolved in water—one pound to three gallons of water. Sprinkle on the floor or bed-clothes, as it will not color. Infected clothing should be dipped in it.

**PICKLED ONIONS.**—Let the onions lie in strong salt and water for two weeks, take out and peel; put in a fresh batch of salt and water for two weeks longer; then wash clean and let lie in fresh water over

night. Next day drain them well, put in a jar and pour over the lot spiced vinegar. White vinegar gives them the nicest color.

**BEAN PICKLES.**—One of the most delicious pickles one can have at this time of year may be made in this way, and they will be ready for immediate use: String the beans as for table use, and place them in boiling water, salting to taste. Let them remain until well scalded, not cooked, drain them off and place in cold vinegar. Add spices if you like. Let the beans remain in the vinegar till well cooled, when, if the vinegar be good and strong, they are ready for use. They are tender and delicious.

**SPICED VINEGAR FOR PICKLES.**—The following is an old and good receipt: Bruise in a mortar two ounces of black pepper, one ounce of ginger, one-half ounce of allspice, and one ounce of salt. If a hotter pickle is desired, add half a drachm of cayenne, or a few capsicums. Put these in a stone jar, with a quart of vinegar, and cover with a bladder wetted with the pickle, and over this a piece of leather. Of course any way of covering equally tight will answer. Set the jar near the fire for three days, shaking it three times a day. To save time it is usual to simmer the vinegar gently with the spices, which is best done in an enameled saucepan.

**A FRUIT HOUSE.**—An Illinois horticulturist has constructed a fruit house which is to be a protection alike from Summer's heat and Winter's cold. Two rows of posts are set in the ground, two and a half feet apart, boarded up inside and out, and the intervening space filled with straw, packed in as closely as possible. Two sets of rafters are then put on, the upper set three feet above the lower, which are boarded on the under side and the space closely packed with straw, after which a cheap board roof is put on. On the 11th of last August, with the temperature 98 in the shade, it was as cold as an ice-house, and contained a quantity of apples as sound as when taken from the trees 10 months before.