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NURSERY CATALOGUE.

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FARMERS HIGH SCHOOL

OF

PENNSYLVANIA.

FARM SCHOOL, P. O., CENTRE COUNTY,

PENNSYLVANIA.

PHILADELPHIA:

KING & BAIRD, PRINTERS, 607 Sansom Street.

1859.

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FARMERS HIGH SCHOOL

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*Pennsylvania - State college - Farmers
- high school*

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PREFACE.

Among the characteristics of our Nurseries are the following :

AS TO SOIL.—The trees are grown in strong loam, thoroughly drained by nature, newly employed in this culture, and therefore free from injurious insects and excreta.

LOCATION.—We are on the elevated plateau which divides the sources of the Juniata and Susquehanna, and about half way between their channels of freight and travel. The Nurseries are on ground exposed to the winds of all quarters, where overluxuriant extensions of growth are checked, and firmness is naturally imparted. We grow only hardy plants; and they will transplant advantageously from our rigorous exposures and brief season of growth to less elevated and warmer districts.

CULTURE.—No surfeiting or unseasonable stimulus is used. All standard sorts are propagated directly from bearing trees; each kind in its own distinct row. Every tree is indelibly marked while standing in the rows, and the utmost care is applied throughout to maintain accuracy to name.

COLLECTIONS.—The interest taken in our Institution brings to us, from all quarters, contributions of new and rare fruits, shrubs, vines, trees and herbaceous plants. The pomological collection from which scions for the orchards and nurseries have been supplied is one of the largest in the country, and we are thus enabled to furnish the *best* productions developed by our fast improving horticulture.

EXTENT.—No greater area is cultivated than can be superintended and worked thoroughly and exactly.

OBJECT.—One of the objects of this Institution is that of disseminating well tried and valuable subjects of Farm and Garden culture, as well as of training native gardeners, and determining true processes. Seeds, plants or cuttings of new, *distinct* and *superior articles* will be gladly received, and duly acknowledged.

PRINCIPLES.

Trees *cannot* continue to flourish satisfactorily unless protective care is continued to them after leaving the Nursery. Nothing more than *protection* is required.

They essentially require

1. Protection against atmospheric injuries.

If trees are allowed to extend slender branches to a great length, high winds will bruise the leaves and break the texture, thus checking circulation. And if trees are trimmed up so as to expose tall bare stems to the sun and wind, the roots and soil must be in the very best condition, or moisture will not be supplied to the elevated head as fast as it evaporates. Hence the reason why large trees and especially *tall* trees, newly transplanted, are so liable to die off in the burning weather of July and August.

2. Protection against pruning knives and saws.

The system of training applied in the Farm School Orchards is to retain two opposite branches at two or three feet from the surface: two more at right angles to these, about two feet higher, and so on alternately; for example, if one pair of branches extends north and south, the next pair should extend east and west. Every year, in March, the

redundant annual shoots are cut out (most of them having been better suppressed by the thumb and finger in the June preceding). Thus the permanent frame of the tree is constructed. There is no occasion left for making future large wounds, which are inevitably followed by decay—the shaded bark remains soft, yielding and entire—sap is supplied freely, there being no dry or dead wood to obstruct its course from the roots—the shoots, leaves, and fruit are large and well developed, being near the supplying roots—the tree attains a full head much earlier, and preserves its vigor far longer—it suffers less by winds, frosts and droughts,—it carries its fruit more firmly—is more accessible—and last, but not least, the *plow* is kept at a distance from the vital parts—the main roots and the main trunk.

3. Protection against mouths of cattle and human fingers.

Vast numbers of trees are destroyed by well meant but ill-judged *trimming*, during the first summer after planting. The *leaves* are vital organs: without them there can be no circulation, no digestion, no formation of wood, no action of roots. The entire trunk should be shaded by them. If they are removed during the season of active growth, stagnation and decay will result. Of course remaining leaves must all be removed from deciduous trees when *taken* up for planting, or the tree will rapidly shrivel. In removing evergreens, the roots must retain a covering of soil; their action must not be interrupted, because that of the leaves continues.

4. Protection of the Roots from wounds, &c.

The soil should be thoroughly loosened, so as to enable the roots to penetrate readily in every direction to the widest extent. The newly formed roots of a tree are quite as tender as those of a weed, and much less active in appropriating nutriment. The roots of no other tree or plant should reach

the bed of a transplanted tree, especially in July and August, when evaporation is excessive, and circulation and growth should have no check. Too often the young tree struggles for life among *weeds*, until, finally, the thoughtless owner comes along, with team and whip and sharp share, and cuts off at one sweep *all* the silent viewless combatants. And when he finds his tree fading, he blames any thing but himself. *Plow Orchards only* when *out* of leaf.

5. Protection from Frost.

Exposed roots of trees are entirely destroyed by a few degrees of frost if thawed hastily in the air. But if carefully buried without bending and consequent breaking of the frozen roots, the frost may be gradually extracted without injury to the structure. The destroyed roots become discolored like a bruised apple. Sometimes only the ends of the roots are injured; and as roots cannot issue from the dead dry wood, it is necessary at planting to cut back to clear healthy wood, even if nearly the whole root must be cut away.

6. Protection from free air.

As animals cannot live without water, yet die if immersed in it; so the roots of plants can neither endure a *bath* of air, nor live without access to it. Plants will not grow well in glazed or painted pots,—in porous pots, their roots seeking air, cover the inside of the pot. In the earth, the best roots, in like manner, coat the surface between the superficial mulch of humus and the mineral soil. The roots of Evergreens should be closely packed immediately on being lifted with soil adhering to them; those of Peach and Cherry trees, Raspberries and almost all plants that will not grow from cuttings, should be plunged in mud thick enough to coat every part of all the roots, and should be buried in fine mould or packed tightly before this coating dries so as to crack off.

7. Protection against Poisons.

Rank, raw manure is poisonous to trees, and especially if placed in contact with the roots; no sod or other raw vegetable matter,—nothing but fine mould should be applied to the roots, and this very compactly. Wherever cavities are left among the roots, they become mouldy and decay inevitably follows.

8. The nearer a shoot issues to the roots, the more sap will it probably receive, and the better will it shade and protect itself. All side branches should be pruned into one bud, excepting those left to form the permanent frame of the head; and, if the roots are weak, these also should be cut back to one or two buds. The shoots from these buds will grow vigorously, whereas if a large surface were left exposed, the roots might not be able to support the evaporation. It has been demonstrated that two hundred and fifty pounds are evaporated, for every single pound of solid matter carried up and deposited in the plant.

9. Protection against Water.

We have all seen the hardiest upland trees perish, where the roots are continually immersed, as in dams. If they are planted in cold, wet soil, the effect is *early* death. The structure is disrupted as effectually and as fatally by water-soaking as by frost.

10. Protection against Drought.

Probably one-half of all transplanted trees die outright or finally, from *drying up* in the hot months after planting. If trees are shrivelled when received, they can be recovered by burying wholly in fine friable mould for eight or ten days. After long-stemmed trees have been planted, it is always expedient to shade the stem with loose, long straw, and to mulch over the roots with straw, leaves, tan, chip-mould or

other litter, laid on the surface to a depth of three or four inches, and extended four to eight feet in diameter. For this *insures* constant moisture as well as an open soil and surface, and precludes danger to the roots from spade or hoe or weeds. Ordinarily the cares and labors of harvest *stop the hoe*, and if the weeds are not *choked* down by mulch, they eventually occupy all that was prepared for the tree, which is lost through want of *quite* finishing what was *almost* done.

11. Protection against Insects.

Wash the stems of young trees with soap or solutions of potash or soda, weak lye, or a mixture of soap, sulphur, tobacco and potash, or any of them. Gas tar and fish-oil soap are effective as applications or ingredients, but must be used prudently. If clay or lime be added to form a coating, the effect is more lasting. Use it in June and August to destroy borers which hatch at those seasons. Earth up round peach trees in the spring to fence the borer from the roots, or apply a small mound of fresh lime in July. Pine brush is a good mulch for peach trees, and tan for berries.

12. To the above may be added *Protection against Thieves*.—Much can be done by patiently setting a good example, by aiding to establish moral training in all schools, and conscientiousness every where; and specially by forming village societies, with the object and duty of extending and encouraging the culture and protection of fruit, so that all may have to *spare* rather than to *lack*. If it is true that there is no more vexatious loss than the robbery of a tree of favorite fruit, grown with care and cost, and just matured to beauty and flavor, it is equally true that one of the most powerful and demoralizing temptations that lie in the way of youth, is that of having no access to an innocent object of passionate desire, but through mean and criminal resorts.

DIRECTIONS FOR TRANSPLANTING.

[The figures refer to the foregoing paragraphs.]

Immediately on receiving trees, and before opening the bundles or boxes, a trench should be prepared in light, *mellow* clean soil (6, 7) in which to bury the roots; and a pool of *mud*, say two feet across and one foot deep, into which to plunge them as fast as *opened*.(6) If it be early in *Autumn*—last of October or first of November—hardy trees may be planted at once, and the earth should be heaped into a cone over the roots so as to keep them *dry* for the *Winter* (5, 9) Tender trees, as peach, plum, apricot, should be laid in the earth in dry, mellow soil,(6, 7, 9,) the roots well banked up,(5, 9,) the tops lying near the surface; and sheltered, *after the ground freezes*, with pine, cedar, or oak branches, or other screens to check evaporation.(10) If applied sooner, mice may feel invited to lodge among the trees. If the soil is dry and can be kept so, the trees may be covered entirely with it. A dry cellar affords a convenient shelter. On planting in the Spring it is well to puddle or mortar the roots in, to settle them compactly.(7) merely covering the roots(9) and filling the hole up after the soil begins to dry. Plant shallow;(6) stake *well*, or, if the tree is tall, the wind will use it as a lever to break off the tender emissions of roots(4) which cannot be restored, unless there is a stock of material remaining in the tree, out of which they can be formed again.

After planting, loosen up the soil well round the extremities of the roots, and at least two feet beyond them.(4) And when it becomes dry—not before—(9) apply a liberal *mulch*.(10) Prune closely *before* the leaves issue, but *never remove a leaf*.(3) Avoid frequent waterings, and do not permit a glazed air-tight surface.(9, 6) Let no

weeds grow within reach of the ends of the roots.(4) *Trees* are quite as susceptible of the benefits of culture as is *cabbage, corn, or tobacco.*

Soil.

Soil dry enough and strong enough to grow *wheat* is all that can be desired for *trees.* If *young* thrifty trees be *fairly* set out, and *protected* as above shown, from the injuries too often inflicted, they will grow without stimulus, and the orchard will be more valuable and incomparably handsomer in five years, than ordinarily in twenty.

Manure.

Vegetable mould and wood ashes are the best applications to promote healthful growth, and they should be applied on the surface.(6) Use the best loam to fill round the roots and beyond their extremities, when planting.(7)

ORDERS FOR TREES AND PLANTS.

The season of planting is, for deciduous trees, from October 15th to April 10th, during mild weather, and the earlier the better, after the leaves have ceased their functions, and can be removed easily.(3) For evergreens—March 1st to May 1st. For herbaceous plants, as strawberries and flowering perennials, any time after blossoming, to September 1st, or in April. Early leafing plants, as gooseberry, rhubarb, and early shrubs and flowers, should be planted as soon as the leaves fade in Autumn, or very early in the Spring. *Late* autumn planting leaves the ground open to water and frost.(9, 5)

When certain varieties or forms of trees are particularly desired, the order should be forwarded early in autumn while the whole growth of the season is in the nursery.

Where particular sorts are named, and no other direction is given, it will be understood that those are specially wanted, and plants will be sent of such size as may remain on hand.

It will be found best to correspond directly with the nursery from which the trees are to be sent, rather than with irresponsible and unknown travelling salesmen. Full lists of all varieties here, will be furnished to amateurs on application.

Trees will be packed in boxes for long distances, or in straw for shorter ones, as directed, at a charge averaging less than one cent per tree. The cost of packing, and carriage, the the labor of planting, and the risk of failure, are all much reduced by selecting trees of healthy growth, not over two years from the bud or cutting. The first cost is also less.— Older and larger trees can be moved more easily and safely, if *transplanted one year previous*. Their health and vigor are indicated by the fullness and ripeness of the last year's growth.

We will deliver trees that are ordered in good season, either to Spruce Creek, Lewistown, or Lock Haven depots as purchasers may direct.

Send the order, with distinct and full directions as to routes, on a sheet separate from other matter. Address "Farm School Nursery, Farm School P. O. Pennsylvania."

CATALOGUE.

NOTE.—Varieties distinguished by **CAPITALS** are those which are in every way reliable and excellent in all soils (*a*) These we grow very largely; those in **bold face type** extend the selection and are scarcely inferior.

Popular sorts, possessing certain *special* fine qualities are printed in common type; of some of these only a few are grown.

Specimen trees or scions can be furnished of *nearly all* published and approved varieties, including very many not included in the Catalogue. We put many different varieties in our assortments to meet the variety of tastes that are found in every family and company.

Characters describing habits of growth.

Y This character marks strong growth of *erect* habit, suitable for road sides and exposed orchards.

Y The same, *not* of erect growth.

I Very erect and strong growers, suitable for yards and avenues.

(Plant all the above 30 to 40 feet apart in orchards, or close in single rows.)

Y Y Slender or low growth, erect or inclining, requiring less space.

y Dwarfish growers, which will not make large trees, and should always be allowed to branch low. These may be planted closely: 15 to 25 feet apart.

A Should be grown *as dwarfs*, the stem entirely shielded by foliage: 8 to 12 feet apart.

d Dwarfs—Pears on Angers quince; Apples on paradise stocks.

(*a*) These sorts ought to be planted round every dwelling in our State, where there is room for them to grow, and freely along roads and lanes. They form a series maturing in succession throughout the year.

Characters describing Qualities of Fruit, (preceding the names.)

Fruits chiefly remarkable for large size are marked.....	O
“ “ “ “ small “ “ “	o
“ “ “ “ beauty “ “	*
“ “ “ “ high flavor are marked † (tongue)	
“ “ “ “ early bearing, “ p (productive)	
“ “ “ “ profuse or regular bearing.....	P
“ “ “ “ long keeping, are marked.....	L
“ “ “ “ good culinary sorts, “	c
“ “ “ “ acid, for culinary use only.....	C

The varieties of fruits are named nearly in the order of ripening.

For full descriptions of fruits, see works on the subject. A Manual will be sent to purchasers of trees, post free, for 38 cts.

APPLES.

Price per hundred, our assortment, 2 yrs. from bud, 4 to 6 feet, branched.....	\$12 00
Price per hundred, our assortment, 3 yrs. from bud, 6 to 8 feet, branched.....	18 00
Price per tree, sorts selected by purchasers.....	15 to 25 c.

Summer Sorts.—*July to September.*

No. 1.	* †		Primate	Y
2.	* †	P	YELLOW HARVEST	Y
3.	O	P	Sweet Bough	Y
4.	*		Early Strawberry	Y
5.	* † c p P		Summer Rose	Y
6.	** C		Red Astrachan	Y
7.	* † p P		Jefferis	y Δ
	†		Sine Qua Non	y
8.	O C p P		Keswick Codlin	Y
	†		Early Queening	Y
9.	o † †		Early Joe	y Δ
10.	O * p P		Summer Queen	Y

11.			Summer Pippin.....	Y
12.	O	P	Summer Sweet Paradise.....	Y*
			Sops of Wine.....	Y
13.	*	c p P	MAIDEN'S BLUSH	I
		†	High Top Sweet.....	Y
14.		† P	American Sum. Pearmain ...y	Δ
		†	Honey.....	Y
15.		† c P	SUMMER BELLFLOWER , Y	
	O	†	Summer Rambo.....	Y
16.	*		William's Favorite.....	Y
17.	O *	†	Golden Sweet	Y
18.	O *	† P	Porter	Y

Autumn Apples.—October.—December.

19.	O	c	Holland Pippin.....	Y*
	O	†	September (native here)....	Y*
20.	O	†	Sweet Rambo	Y
	*	† p	Northern Sweet.....	Y
21.	*	p	Sweet Russet (apple butter). Y	
22.	*	p	Sweet Yellow Butter . “	Y
23.		†	Haskell Sweet. “	Y
	O		Pumpkin Sweet. “	Y
24.		p	Jersey Sweet . “	Y
25.	*	†	Fall Winey	Δ
26.		†	RAMBO	I
	O	c P	Hayes	Y*
27.	O		Hawly	Y
	O		Alexander.....	Y
28.	O	c	French	Y
29.	O	†	Republican.....	Y*
	O *		Blenheim P	Y
30.		†	Dyer	I
31.	*		Gravenstein	Y Δ
	*		Oldenburgh	Y Δ
32.			St. Lawrence.....	Y
33.	O		Fall Pippin	Y*
34.	*	P	Autumn Strawberry	Y
35.		† P	Mother	Y

36.	*			Fameuse.....	Y
37.				Gate	Y
38.	O	† c	P	Smokehouse.....	Y*
	*		p P	Hawthornden	y

Winter Sorts.—*January.*—*March.*

39.	* †			Wine	Y
40.	* †	p	P	Hubbardson.....	I
41.	†			Melon.....	y Δ
42.	†			N. Y. Vandevere.....	Y
43.	† c			Red Vandevere.....	Y
				Ohio Nonpareil.....	Y
44.	* †			Winter Strawberry.....	I
45.	* †			Winter Rambo.....	I
			P	Domine.....	Y*
46.	†			Baily Sweet.....	Y
47.	O	†	P	Yellow Bellflower.....	Y
48.				Canada Reinette.....	Y
	O	C	p	Ewalt.....	I
49.	O	c		RHODE ISLAND GREEN-	
				ING.....	Y*
50.			P	Tolman's Sweet.....	Y
		†	P	Falder	Y
51.				Peck's Pleasant.....	Y
52.		c	P	Winesap.....	Y
53.	* †	p	P	Jonathan.....	y Δ
54.			p	Wagner.....	Y
	O *	c	p P	ADAMS. (native.).....	Y*
55.				Borassa.....	Y
		†	L P	Romanite.....	I
56.				Red Canada	y
57.				Westfield.....	y
58.	O	†	p P	FALLOWATER.....	Y
59.			p P	Pomme Grise.....	Y
60.	* †			Golden Reinette.....	Y Δ
61.	O	†	P	Esopus SPITZENBERG.....	Y
62.	o	†	p P	American Golden Russet.....	I
63.	O	†	P	Swaar.....	Y*

64.	O	†		Tompkins' King.....	Y
65.		†	p	Green Sweet.....	I
66.	o	†		Lady.....	I Δ
67.	o		P L	English Russet.....	I
68.				Winter Sweet Paradise.....	I
69.			p P	Michael Henry Sweet.....	Y
70.		†		Hereford Pearmain.....	Y
71.		†	L	Newton Pippin.....	Y
72.	O		p P	BALDWIN.....	Y
73.	O	†	L	Northern Spy.....	I
	O		P L	Blackjack.....	I
74.	O		P L	Boston Russet.....	Y
75.	o		p P L	Carthouse.....	Y

PEARS.

Pear trees will not endure arbitrary and forceful culture, although naturally the longest-lived of domestic fruit trees. They especially require to be *let alone* in the manner indicated in 1, 2, 8, 10 of "Protection." They should be lifted *early* before vegetation commences (order early). Those marked *d* succeed well as dwarf-trees on quince, but the soil must be mellow, and spaded around the extremities of the roots *early* every spring. In planting dwarfs, the junction of the pear and quince should be three or four inches beneath the surface, and the trees should be of but one year or not over two year's growth from the bud. Trees marked **A** bear early, if trained as low pyramids on seedling pear stocks, and yield *almost never-failing* crops of the most delicious of fruits. Pears can be taken in before they color, and thus kept safely, and ripened more perfectly.

PRICE.

One year from the bud (2 feet), 30 cents each. Per dozen, \$3 00.
 Two years " " (2 to 4 feet, branched), 40 cents each.
 " " " " " per dozen, \$4 50.
 Larger trees (transplanted), each, 50 cents.

Summer Sorts.—*July, Oct., Sept.*

No. 76.	o		P	St. John's (earliest).....	Y
77.		†	p P	MADELEINE	Y A
78.	o		d	Summer Doyenne.....	Δ
		†	d	Giffard.....	Y
79.		†	p P	Bloodgood	y A
80.	O	*	d	Jargonelle.....	Y
81.		*		Moyamensing.....	Y
82.		†	* p P d	Osband	I A
83.	o	†	P	Dearborn	Y A
84.	o	†		Rostiezer.....	Y
85.	O	†	* P	Shenks	d Y
86.			d	Kingsessing.....	Y
87.			p P d	JULIENNE	Y A
88.				Sterling.....	Y
89.		†		Tyson.....	Y
90.	O	* †	p P	BARTLETT	I A
91.			d	Brandywine	y A
	o	* p P		Zoar Beauty.....	Y

Autumn Sorts.—*Oct., Nov., Dec.*

No. 92.		†	P	St. Ghislain.....	Y
93.	O	*	d	Steven's Genesee.....	Y
94.	O	* †	P	Flemish Beauty	Y A
		†	p P	Howell.....	Y
95.	o	† *	P d	Belle Lucrative	y Δ
	o	†	d	Kirtland.....	y
96.	O	† *		Paradise d'Automne	Y
		†		Tea	Y
97.			d	Bilboa.....	Y
98.	O		p P d	Duchess d'Orleans	Y
		†	p P d	BUFFAM	I A
99.		†	P d	Butter	Y A
		†		Collins.....	y
100.	O		d	Long Green.....	I
	O	† *	P d	Anjou	Y A
101.		* †	P	Washington	Y A

102.		p P d d	LOUISE BONNE	I
	†	P	Sheldon.....	Y
103.	O *	P d d	Angouleme	Y
	O		Nouveau Poiteau.....	Y A
104.	O *	p P	Bosc	Y A
			Gratioli.....	Y
105.	o † †	p P	SICKEL	y A
	†	p P	Gray Doyenne	y A
106.	†		Urbaniste... ..	Y
			Petre.....	Y
107.	O		Boussock.....	Y
	†	p P d	Catinka	Y A
108.	O		Swan's Orange.....	Y
	o	p P	Fulton.....	y A
109.	O † *		Clairgeau.....	Y
	†		Howell.....	Y

Late Autumn and Winter Pears.—*Nov.—March.*

(These must be kept in *close* boxes in a cool airy cellar, until their season of ripening, then transferred to a warm room for a week or more.)

No. 110.	O † P *	d	B. DIEL	Y A
111.	O †	*	Dix.....	Y
112.		*	Forelle.....	y
113.	O	* d	Oswego.....	Y
114.	O		V. M. Leon le cleric.....	Y
115.	O		Columbia.....	Y
116.	O	P C d	Winkfield	I
117.	† p P		New "Gray of winter".....	A
118.			D' Alençon.....	Y
119.	† p P		Nelis	y A
120.		C	Worcester.....	Y
121.	O	C d	Pound.....	Y
122.	†	P	Aremberg.....	Y
123.	†	P d d	Glout morceau	Y
124.	†	P d	Lawrence	Y A

125.	†		Princés St. Germain.....y A
126.		*	Passe Colmar.....Y
127.	†		Josephine de Malines.....y
128.	O	d	Easter Beurre.....Y
129.			B. RanceY

CHERRY.

June to August.

All the class of 155 to 165, low growers, can be supplied on Morello stocks. Full standards of the erect strong growing sorts. These are very eligible as shade trees. All should be lifted for planting before vegetation commences. Nos. 142 to 153 form a succession of the Bigarreau class.

A considerable variety of cherries is desirable in respect to season, color, flavor and uses, and the absence of all other fruit in their season. They grow in dry soils only, and the fruit does not attain its *flavor* until fully ripe.

Price of low branched dwarfs with fruit buds..... \$ 40
 One or two years from bud, per doz. assorted; 2 to 5 feet, 3 50
 Large trees transplanted; 6 to 8 feet; each..... 50

130.	o	p P	Early Purple.....Y
131.	†	p P	Governor Wood.....Y
132.	*	†	Coés Transparent.....Y
133.	O *	p P	BLACK TARTARIANI
134.	O † *	P	BLACK EAGLEY
135.	O		Knights' Early Black.....Y
136.	O † *	p P	DowntonY
137.	O		Cumberland.....Y
138.		*	White French.....Y
139.	†		Sparhawk.....Y
140.	†	P	DOWNERS late red.....I
141.			Hovey.....Y
142.	o		Early White Heart.....Y
143.		†	Rockport.....I
144.	O *	† p P	ClevelandY

145.	O * † p P	Elton	Y
146.	O * † P	Bigarreau	Y
147.	*	Burr's Seedling	I
148.	O *	Great Bigarreau	Y
149.	O *	Napoleon	I
150.	O *	Ox heart	Y
151.	† P	Gridley	Y
152.	O *	Mezel	Y
153.	*	Buttner's Yellow	Y

Acid Cherries.—*June to August.*

The sorts marked † have abundance of subacid juice. They are most acceptable and refreshing in the heats of haying and harvest. This class should be liberally planted on every farm.

154.	o	Indulle	Y A
155.	o c p P	Early Kentish	Y A
156.	O * † c p P	REINE HORTENSE	Y A
157.	O † c p P	MAYDUKE	Y A
158.	* †	Belle de Choisy	Y A
159.	c C P	Carnation	Y
160.	c † P	Late Duke	Y A
161.	c C p P	English Morello	Y
162.	c C P	Plumstone Morello	Y
163.	O * † p P	BELLE MAGNIFIQUE	Y A
164.	O † p P	Louis Philippe	Y A
165.	c C P	October Morello	Y A

APRICOTS.—*July.*

Apricots succeed the sweet cherries, and precede other tree fruits. The trees are as hardy as plum trees, but they blossom early, and the crop is uncertain unless the tree is trained on a wall.

Price.....40 cents each.

166.	o * c	Early Golden	Y
167.	O * †	Large Early	Y
168.	o c	Breda	Y

169.	O * †	Moorpark.....	Y
170.	O †	Brussels.....	Y
171.	O * †	Peach.....	Y

PLUMS.—*August to October.*

This fruit varies remarkably in color, flavor, form, size, season, and in habits of growth. The large luscious varieties are liable to rot in low, confined places, or if crowded. All are liable to the curculio, which must be looked for early in May. The fruit will well compensate for the trouble. Our stock is entirely free from black knot.

Prices for vigorous growers, 3 to 5 feet, branched.....	40 cents.		
“ “ “ “ extra-sized trees.....	50 “		
“ “ dwarf growers, (y).....	50 “		
172.	*	Primordian	Y
173.	O *	Scarlet Cherry.....	Y A
174.	†	Early Orleans.....	Y A
	†	Henrietta.....	y
175.	O * †	BRADSHAW	I
176.		Yellow Gage.....	Y
177.	o * p P	Mirabelle.....	y A
178.	o * †	Mamelonne	y
179.	o † † P	Green Gage.....	y A
180.	O † *	Washington.....	Y
181.	O *	Yellow Magnum Bonum.....	I
	O *	Red Magnum Bonum.....	Y
182.	c * p P	YELLOW PRUNE	Y
183.	† P	Galbraith.....	y
184.		Hudson's Gage.....	Y
185.	* P	Peach Plum.....	I
186.	† p P	LAWRENCE	I
187.	P	Red Gage.....	Y
188.	†	Schenectady.....	Y
189.	† p P	IMPERIAL GAGE	Y
190.	† *	McLaughlin.....	Y
191.	† P	English Apricot.....	Y

192.	O	†		Smith's Orleans I
193.	O	†	P	Jefferson Y A
194.	O			Huling's Superb..... Y
195.		†		Schuyler Gage..... Y
196.	O			Columbia..... Y
197.			P	Cruger's Scarlet..... Y
198.	O		c p P	LARGE LATE PURPLE ... Y
199.				St. Martin..... Y
200.		*		Lombard Y
201.		*		de Bavay..... Y
			c †	Swiss Prune Y
202.			P	Prune Damson Y
203.			c	Manning's Blue Prune..... Y
			c	L St. Catharine..... Y
204.	O	†		L Golden Drop..... Y
205.		†		L Ickworth I
206.		†		L Autumn Gage..... Y
207.			c P L	Late Damson Y

PEACHES.

August.--October.

Only the hardiest of the budded varieties can be grown *here* to any advantage, and these only on elevated dry ground, or in the near vicinity of unfreezing streams. Yet trees which are allowed to renew themselves by sprouting from the root, live to a great age. The bark of the peach tree is of open texture, allowing free evaporation(1). The roots are also very tender, (5, 6, 9), and trees planted in autumn are liable to perish. If removed at that season they should be kept through severe weather in a dry cellar, or buried in dry soil. (5, 6.) The peach-worm must be guarded against and expelled, (11) while the tree is young. The curled leaf is the chief bane of the peach tree: it destroys the first and most

important leaves, (3) and retards the period of active growth until September and October. The tree is yet full of liquid sap, when severe frosts occur, and the entire structure is injured. This evil aggravates itself from year to year. The tree can be preserved only by allowing a new stem to spring *from the root*, and sheltering during winter by low training and screens of cedar, pine or oak. Plants kept in a dry cool cellar do not exhibit curled leaf in the spring.

The protections described in 1, 3, 5, 6, 8, 10, 11, are vitally essential. The tree should stand in an orchard convenient for culture of the entire surface, and should branch low. Shoots, which can be bent down to the surface, can be protected so as to *secure* fruitfulness.

Price of low branched budded trees 3 to 5 feet, select sorts, \$ 20
 “ “ “ “ “ per dozen, 1 75
 “ “ unbudded seedlings from good fruit, per 100, at
 nursery,..... 5 00

No. 208.	†		Early Tillotson.....y
209.	o †		Troth's Early.....y
210.	o †	P	Serrate Early York.....y
211.	† †	p P	Large Early York.....Y
212.	O * †	p P	Crawford's Early.....Y
213.	*	c	White Imperial.....y
214.	O *	P	Yellow Alberge.....Y
	O * †		Yellow Rareripec.....Y
215.			Walter's Early.....y
216.			George IV.....Y
217.	O †		Cooledge.....Y
218.			Grosse Mignonne.....y
219.	O * †	p P	Waring's Yellow.....Y
220.	o †	p	Early Violet, NectarineY
221.	o †	p P	Elruge, "Y
			Hunt's Tawny, "y
222.	o		Downton, "Y
			New White, "y
223.			Boston, "Y
			Stanwick, "Y

224.	O * †	p P	Oldmixon Cling.....	Y
225.	* †	P	Oldmixon Free.....	Y
226.			Heath Free.....	Y
227.			Malta.....	Y
228.			Bellegarde.....	Y
229.	O * †		Susquehanna.....	Y
230.	* c	p P	Snow.....	Y
231.			Red Magdalen.....	y
232.	* c	p P	Morris White.....	Y
233.			Smock Free.....	Y
234.	O *		Jacque's Rareripe.....	Y
235.	O *	P	Crawford's Late.....	Y
236.			Late Red Rareripe.....	Y
237.			Large White Cling.....	Y
238.	O * c	p P	Blood Cling.....	Y
239.	O		Late Admirable.....	Y
240.	* †		Bergen's Yellow.....	Y
241.			Scott's Nonpareil.....	Y
242.			Ward's Late Free.....	Y
243.	O *		Heath Cling.....	Y

GRAPES.

This fruit has of late attracted the general attention of amateurs, and is being rapidly improved. Choose plants of not over two years, with numerous and *firm* roots. Set them in full sunshine—the leaves will not endure shade, (3.) Let the entire bed that will be occupied by the rambling roots be mellow and rich. Growth often issues preferably from buds covered in planting, and the surface must be open to allow their ascent. The opening buds are very tender, and should be guarded from the touch of passing fowls, dogs, &c.

ISABELLA, O * † P The growth does not mature fully in our latitude, yet the yield is often *too* profuse, and

the fruit is scarcely ex-
celled.....25 c.

1 year \$10 per 100.

2 years \$15 per 100.

CONCORD, O * P Very hardy, early, and
excellent, if thinned
and well ripened.....50

Catawba, * † p P Hardy wood; fruit sel-
dom ripens here; rich.
\$15 per 100.

York Madeira, † P P L Excellent when fully
ripe, for table or wine.
(early.)25

Clinton, P P L A most hardy and vigor-
ous grower; it should
ripen fully; will keep
well, and makes good
wine.....15
\$8 per 100.

y **Diana, Delaware,** † † }
y **Rebecca,** * † } If ordered early.....1 00

Jelly, c P P Excellent for drying,
early, perfectly hardy. 15

Our list includes others, as Anna, Emily, Louisa, Marion,
Logan, Mary Ann, Cassidy, Kilvington, Garrigues, Ohio Herbe-
mont, To Kalon, Hampton, Kingwood, August, Raabe, Brinckle,
Wright's Isabella, Early Amber, Northern Muscadine, Purple
Fox, Charter Oak, Le Noir, Miller's Burgundy, Franklin.

Hedge Plants.—Protective and Decorative.

Honey Locust,.....	1 year.....	per 1000.	\$10 00
Osage Orange,.....	"	" " .	5 00
Privet, cuttings.....	"	" " .	5 00
" strong rooted plants for immediate effect.	per 100.		3 00
Sweet Briar,.....	1 year.....	per 1000.	8 00
Norway Spruce.....	10 inches.....	per 100.	15 00
Hemlock Spruce.....	10 to 15 inches.....	per 1000.	15 00
Red Cedar.....	10 to 15 inches.....	per 1000.	20 00

MISCELLANEOUS.

- Mulberry.** American red, 25 cts., English black, 50 cts., Downing's, \$1 00.
- Quince.** Apple Quince, the best and only hardy good sort 25 cts. to 40 cts.
- Chestnut.** American 25 cts. to 40 cts.
- Almond.** Hardshell, sweet 25 cts.
- Blackberry.** New Rochelle, per doz. 1 00
High bush, each 20 cts.
- Gooseberry.** (mulch well, and thin out every Spring.)
Houghton, per doz. \$1 50, each 15 cts.
Sweet Water and Cluster, free from mildew,
per doz. \$1 50. each, 15 cts.
Green Wave, and other *large sorts*, (less productive) 25 cts.
- Currant.** (mulch well, and thin out)
Black Naples, sweet black, and red Dutch,
each 15 cts.
White Dutch, White Grape, Cherry, Victoria, per doz. \$1 50, each 25 cts.
- Raspberries.** Mulch liberally with tan or other litter. All require winter covering, (of earth or mulch, applied in November,) excepting the American. The Red Antwerp is nearly hardy, and the Autumn sorts bear on shoots of the *same year*.
American Red and Blackcap, per doz. 75 cts.
True Red Antwerp, Fastolf, per doz. 1 00
Orange, Knevett's giant, each 20 cts.
Fontenay, (aut.) and Four Seasons, (aut.).. 20 cts.
- Strawberries.** Spring is the best season for planting, but with special care the plants can be moved at any season. Very deep soil, clean culture, room, and mulch of decayed leaves, will secure immense yield from the sorts marked P. Pistillate sorts (p) must have hermaphrodites (h)

in adjoining beds or rows. If plants have been long on the way, rinse well, and *keep the leaves clean*.....

	Large Early Scarlet (h). Hovey, p. P., per hundred.....	1 00
	McAvoy's Superior, p. Crimson Cone, p. P. Peabody, h. †.....	1 50
	Wilson's Albany, h. P. P. Genesee h. Burr's New Pine, p. † †	per doz. 50
Rhubarb.	Linnaeus, exceedingly tender and fine, †, ea. 25 cts.	
	Early Scarlet,	per doz. 1 50
	Victoria, very large,.....	per doz. 2 00
Asparagus.	Roots, one and two year, per hundred.....	75
Potatoes.	Prince Albert's, per bushel.....	1 00

DECORATIVE PLANTS.

The collections of specimen trees are large, and cannot be embraced in the present catalogue. We enumerate only those of which there is a stock in the nursery,

Note.—fol. indicates plants having remarkable **foliage**.

fr. “ “ “ “ **fruit**.

wint. “ leaves, shoots or berries bright and showy in **winter**.

od. “ odorous leaves or flowers.

ev. indicates evergreen.

w. indicates pendent or weeping.

Trees.

Silver Maple,	fol. wint. Y , 6 to 8 feet,	40 cents.
Magnolia acuminata,	fol. fl. wint. I . 2 to 4 feet,	50 “
Horse Chestnut,	fol. fl. Y , 2 to 4 feet,	50 “
Mountain Ash. (Europ.)	fol. fl. wint. I , 6 to 8 feet,	40 “
Ash, white,	fol. fl. win. I , 4 to 6 feet,	40 “
Tulip tree,	fol. fl. * I , 4 to 6 feet,	50 “
Willow, <i>S. pentandra</i> , <i>daphnoides</i> , <i>annularis</i> , <i>Babylonica</i> , <i>fontana</i> , <i>rosmarinifolia</i> , <i>caprea</i> , and other decorative species, fl. fol. wint. od Y , w .	Untrained plants, 20 cents each. Grafted & trained 50 cents each.	

Norway Spruce,	ev. wint. A. w. 1 to 4 feet,	50 cents.
Hemlock Spruce,	ev. wint. I A, 1 to 5 feet,	50 "
Black Spruce,	ev. wint. I A, 2 to 4 feet,	50 "
Balsam Fir,	ev. wint. I A, 2 to 5 feet,	50 "
Silver Fir,	ev. wint I A, 1 to 3 feet,	50 "
Scotch Pine,	ev. wint. I A, 2 feet,	50 "
Larch,	fol. fl. I A, w. 6 to 8 feet,	50 "
Arbor Vitæ, American, ev. fl. A,	2 to 3 feet,	50 "
Arbor Vitæ, Siberian, fol. A,	1 to 2 feet,	50 "
Cherry, double flowering, fol. fl. Y,		50 "
Cherry, large weeping, fol. fl. w,	4 feet,	50 "
Crab. Chinese double flowering, fol. fl. Y,	3 to 5 feet,	25 "
Crab, Siberian, red, yellow, purple, &c., Y,	fl. fr. 3 to 5 ft.,	25 "
Cercis, Judas tree, r. fol. fl. Y,	3 to 5 feet,	40 "
Sambucus, parsly leafed elder, fol. fr.		25 "

SHRUBS.

We name only some of the most desirable of those of which there is a stock in the nursery. Those which have a permanent beauty of foliage are marked, fol. The colors of flowering species are indicated by bl., for blue; w., for white; r., for red; p., for purple; pk., for pink; y., for yellow; var., for variegated; 1, 2, 4, 6, 8, feet of height; cl., climbing.

EARLY SPECIES.—*Developing in March or April.*

Cydonia Japonica , Japan quince,		cts.
	fol. * r. pk. 4, per doz. \$3 50 ea.	50
Ribes , Crimson currant, Gordon's		
	and others, r. var. 4,	20
Forsythia viridissima ,	fol. 4,	2 00 20
Shepherdia argentea ,	fol wint. 8,	50
Spirea prunifolia ,	fol, * wh. 2,	2 50 25

MAY.

Calycanthus , sweet scented shrub, od. * p. 3,		40
Spireas , several distinct species, fol. * r pk. w. od. 2 4,		25
Crataegus , double fl. Hawthorn, fol. * pk. wint. 8,		40
Mahonia aquifolium , * fol. fr. ev. A p. wint. 6,		50

Syringa , Lilacs, several fine v.,		
	fol, * w. p. b. od. 4 8,	20 to 50 cts.
Lonicera , shrub honeysuckles,		
	w. * pk. fl. wint. 6,	25
Amygdalus , dwarf fl. almond, * pk. 4,		25
Ceanothus , New Jersey tea,		
	wh., low hedges, 1, doz., 1 00	15
JUNE.		
Amorpha fruticosa , false indigo,		
	fol. p. 10,	25
Wiegela rosea , low hedge, * r. pk. 2,		25
Colutea arborescens ,		
	curious, fr. * 6,	25
Deutzia gracilis , low hedges, wh. 2,		25
“ <i>scabra</i> ,	fl. wh. * 5,	25
Robinia , mossy locust,		
	fl. pk. * showy, 5,	40
Philadelphus , mock orange,		
	(sorts,) fl. wh. od. 6,	25
Viburnum oxycoccum , cranberry bush,		
	r. fr. fl. 6,	40
Spireas , different distinct sorts,		
	pk. wh. * 2, 6,	25
Roses , red, white, and crested moss, *		40
“ <i>dove</i> , cottage, velvet, painted and other		
June roses—the most distinct, * 2, 5,		25
Honeysuckles , the most distinct and showy,		
	fl. cl. r. wh. var. od. 8,	25
JULY.		
Rhus , mist tree,		
	A wh. p. fl. * wint. 6,	40
Roses , prairie climbing roses,		
	* fl. pk. wh. 10,	25
“ <i>perpetuals</i> , many fine sorts, (selected from a large		
number of varieties.) fl. pk. wh. re; var. 2 to 6; 30 to 50		
Spirea callosa and others, * r. pk. 4,		25 to 40
Ligustrum , privet, y. fol. fr. wh. wint. 8,		25
Artemisia , Southernwood,		
	low hedges, od. fol. 2, cuttings, pr. 100,	25

Sambucus pubens , red elder, * fr. 8,	25
Wistaria , Glycine—Am. and Chinese, cl. * fol. fl. 10,	50

AUGUST, SEPTEMBER, AND LATER.

Euonymus , burning bush, fl. p. fr. * wint. 8	40
Berberis , fl. fr. r. * wint. 6,	40
Symphoria , white and red, fr. * * wint. 5,	25
Roses , select Bourbons, Noisettes and Remontants, * * var. 2 to 8,	40
Hibiscus , Althea, fl. * * var. 5 to 8,	40
Celastrus scandens , cl. wint. fr. * r. 15,	25
Ampelopsis , American Ivy, cl. fl. r. 20,	25

(The last two, with Glycine and Japan Honeysuckle are well adapted for planting at gateways and doors, being neat, clean and thornless.)

HERBACEOUS PERENNIALS.

These are "a vivid vigorous breed," the first loves of all florists, especially desirable to all who wish their homes to smile with flowers, but who have little experience in their culture, or little time to devote to it. Once planted they endure for years, excepting the few marked as "tender," and the simplest care suffices them.

To aid in selecting and arranging, we have classified them in regard to height, color and season. The letters denote the prevailing colors.

A few (marked *b*), are biennials, usually continuing three years or longer, if not allowed to seed. See descriptions in Breck's Book of Flowers, or other manuals; 10 to 25 cts. each.

LOW PLANTS—(6 inches,) suitable for fronts of borders.

Crocus , per dozen bulbs, var. col, str. y. blue...	Mar.
Snowdrops , " " wh.....	Mar.

Daffodils, per dozen bulbs, var. col., fr. y.....	Mar.
Violet, sweet scented, English, fr. blue.....	Apr.
Daisy, <i>Bellis perennis</i> , (tender in sun and frost, wh., pink	Apr.
Pansies, Heartsease, var. col., wh, y., pur., red..	Apr, Dec.
Jonquils, per dozen bulbs, fr., y.....	May.
Phloxes, reptans, divaricata, subulata, wh, blue, pur., pk.....	Apr., May.
Candytuft, <i>Iberis tenoreana</i> , wh.....	Apr., May.
Cowslip, American, <i>Dodecatheon</i> , fr., wh., pur...	May.
“ English, and <i>Polyanthus</i> (<i>primula</i>), fr., y., red.....	May.

HIGHER PLANTS—12 to 18 inches.

PAEONIES , several very distinct and showy, fr., wh., y., pk., rose, red.....	May, June.
Sweet Williams , endlessly varied, fr., wh., str., pur., pk., red....	May, June.
Columbines , various, blue, pur., red.....	May, June.
Cowslip Virginian, <i>Mertensia</i> , blue.....	May, June.
Perennial Flax , <i>L. grandiflorum</i> , &c., y., red....	May–Aug.
Lychnis , different species, pk., scar.....	June–Aug.
<i>Calystegia pubescens</i> , wh., pk.....	July.
<i>Amaryllis</i> , <i>formosissima</i> and others, tender bulb, red.....	July.
Verbenas , var., plant out in June, tender p., wh, str., blue, pk., red.....	June–Nov.
Petunias , var., plant out in June, tender, fr., wh., str., pur., pk.....	June–Nov.
Pentstemons , var. <i>coccinea</i> , <i>digitata</i> , &c., blue, pur., scar.....	July–Sep.
Tiger flower, Mexican, (<i>Tigridia</i> .) spot., y., or....	July, Aug.
<i>Achillea</i> , <i>ptarmica</i> , <i>filipendula</i> , &c., wh.....	July, Oct.
China Pinks , (bi.) exceedingly various col., wh., str., pur., red.....	July, Sep.
Garden Pinks , various, fr., wh., pur., pk., red....	July, Oct.
Chrysanthemums , many var., wh., y., pur.....	Oct., Nov.

PLANTS OF TWO TO THREE FEET, for the middle or back of borders.

Phloxes , varieties of medium height, fr., wh., str., pur., pk., red....	June–Oct.
Lupines, Californian, and other perennial, blue...	May, June.

- Day Lilies**, (*Hemerocallis*, *Funkia*.)
wh., y., blue.....June-Aug.
- Coreopsis*, lanceolata, verticillata, y., pur..... June-Sep.
- Snapdragons**, (*Antirrhinum*.) var. mixed col.,
wh., y., pur., red..... June-Sep.
- Spireas**, filipendula, Japonica, lobata, &c.,
wh., pk.....June-Aug.
- Clematis integrifolia*, blue.....June-Aug.
- White Lily**, fr., wh..... July.
- Dracocephalum*, dentatus, pur. pk..... July, Sep.
- Gay Feather**, blazing star, (*Liatris*), pur., red.... Aug., Sep.
- Butterfly weed**, *Asclepias*, or..... Aug., Sep.
- Cardinal flower**, *Lobelia*, blue, scar..... Aug., Sep.
- HIGHER PLANTS**, suitable for planting in the back ground,
near clumps of shrubbery or hedges.
- Gas plant, *Dictamnus fraxinella*, wh., red..... May-July.
- Bell flowers**, *Campanula nobilis*, grandis, &c.,
wh., blue, pur.....June, Aug.
- Foxglove**, *Digitalis*, (bi.) wh., spot., pk., red....June, July.
- Larkspurs**, *Delph. formosum*, Barlowi, &c, blue..June-Aug.
- Ipomopsis*, (*Gilia*.) elegant and showy, scar..... June-Sep.
- Phloxes**, tall varieties, fr. wh., str., pur..... June-Sep.
- Monkshood**, *Aconite*, blue..... July-Aug.
- Tiger Lily**, *Canadense* and others, spot., or., red.. Aug.
- Clematis erecta*, wh..... Aug.
- Sword Lily**, *Gladiolus florib. psit. gand.*, &c.,
tender bulbs, pur., pk., scar... Aug.
- Asters**, var., wh., blue, pur..... July, Aug.
- FOUR TO EIGHT FEET**, (*cl. climbers.*)
- Sunflower, perennial, y..... Aug., Sep.
- Allegheny Vine**, cl., *Adlumia cirrhosa*, (bi.,)
wh., blue, pur..... June, Oct.
- Virgin's Bower**, *Clematis flam. Virg. vitic*, &c.,
fr. cl., wh., blue..... June, Nov.
- Hollyhocks**, double, var., wh., y., pk., red..... July, Aug.

Teachers, learners, or amateurs wishing to procure dried leaves, blossoms, seeds, or wood from specimens in the arbor-etum or nurseries, can correspond with the classes in Botany, through the "Professor of Botany," F. H. S., Farm School, P. O., Penna.



