

### SHRUBS BEAUTIFUL IN NATIVE HABITAT AVAILABLE FOR OREGON TRANSPLANTING

Plants Will Make State's Waste Places Beautiful and Furnish Delightful Adornment for Spots That Otherwise Would Be Bleak and Barren to One Who Is Lover of Nature.



Fig. 1, Spiraea Hardback.

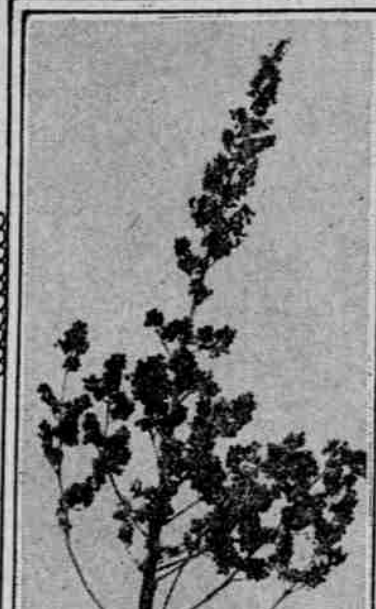


Fig. 2, Seed Pods of Spiraea



Fig. 3, Mountain Balm.



Fig. 4, Nettle Bark, Wild Bridal Wreath.



Fig. 5, Seed Pods of Wild Bridal Wreath



Fig. 6, Indian Plum.



Fig. 7, Fruit of Red Flower



Fig. 5, Seed Pods of Wild Bridal Wreath



Fig. 8 Rhododendron

BY ALBERT R. SWEETSER, Professor of Botany in the University of Oregon.

UNIVERSITY OF OREGON, Eugene, Feb. 12.—(Special).—Again more Oregon shrubs are brought to our attention. Shrubs not only beautiful in their native habitat, but also available for transplanting and furnishing delightful adornment for our waste places.

Closely related to the Ocean Spray is the family of Spiraea. There are several representatives of this family in the state, but none more beautiful than the purple Spiraea, Hardback or Steeplechase, Fig. 1. Naturally these form large clumps in meadows and pastures. They may be known at this time of the year by the clusters of dried seed pods, having the same conical arrangement as the flower cluster, figure 2. These should be planted out in quantities in suitable localities, forming delightful mass groups.

Especially valuable because of its shining evergreen leaves is the (wrongly so-called) mountain balm, fig. 3, *Ceanothus velutinus*. This was at one time gathered in large quantities and used for a cough medicine. While abundant in the mountains, it is found at all levels, and round about Portland occurs in great quantities along the line of the Oregon Electric railway south of Garden Home. This shrub may be recognized at this time of the year by its persistent elliptical leaf, having three pronounced main veins. Its upper surface is dark green and shines as if recently varnished, while its under side is lighter and powdery. In its flowering season it attracts the attention by its white perfumed flowers.

The wild Bridal or Nine Bells, figure 4, is another interesting wild shrub. When in blossom the flowers are collected into somewhat spherical heads. The branches are straight and the bark peels off in long shreds. After the flowering time the seed pods are evident in a similar cluster. At this time of the year, although leafless, it may be recognized by its shredding bark and occasional clusters of seed pods.

The Indian Plum or Oso Berry is always an object of interest to the nature lover because it begins to show its delicate green leaves and white flowers very early in the season along with the pussy pads of the willow and the tassels of the hazel, figure 6. For this reason it would be an interesting shrub for transplanting. Later in the season it develops red fruit with thin flesh and large stone. It may be further recognized by the pungent odor which a broken branch gives forth.

None of our wild shrubs can be more readily transplanted or grow more luxuriantly than the red flowering currant. Its beautiful flowers in the early spring make it valuable to be included in the scheme of decorations for our highways and parks. Not only is it a source of aesthetic delight, but it becomes a sort of mecca for the visit of the bird lover. For the patient watcher will be rewarded by a visitor from out heaven's blue, the tiny humming bird with its wonderful play of colors. This shrub spreads with considerable rapidity so that a few individuals may soon form masses. At this time of the year it has no peculiar marks by which it may be distinguished, but in the fall it bears clusters of spotted berries, figure 7, and it can then be marked for transplanting.

The Oregon grape needs no illustration and but little description. It occurs in two general forms in the state, one tall and erect, the other low and spreading. The former seems to be a little more difficult to transplant, but if properly executed can be made to grow in wonderful masses rejoicing the Oregon winter by its glossy evergreen leaves, which are

often mistaken by the newcomer for holly, and the spring by its wonderful clusters of yellow flowers. The lower form would furnish desirable plants for banks and hillsides, and seems to be more readily transplanted. This, our Oregon state flower, might well be made very evident in the public places of the state to be pointed out with pride to the visitor within our borders.

All who have visited the haunts of the rhododendron at the time of its flowering know well its wondrous beauty, figure 8. Many are the attempts to raise it in the home garden, but the percentage of failure is high and it seems extremely sensitive to change. It is difficult to remove sufficient roots without mangling

them, and too often the soil to which it is transplanted is so different in texture and nourishment that it fails to furnish food and root hold for the shrub. But, there is no reason if there were sufficient demand, why our nursery men could not raise the native forms as readily as they do the exotic and furnish them with balled roots at a reasonable price. A near relative of the rhododendron is the azalea with its white blossoms heavy with fragrance, found in the southern part of our state. This should be included in the list of our wild shrubs to be used in adorning the highways and parks.

### WORLD'S FINEST APPLES ARE PRODUCED IN OREGON

State's Unequaled Climate Coupled With Intensive Methods of Culture Put Fruit in Class Without Rivals.

BY INEZ GAGE CHAPEL.

IT IS the pride of Oregonians and admitted all over the United States and even in foreign countries that the fruit we grow in our state is the finest grown in this country. Our apples are unequalled in any market in the world, our pears have but one rival—those grown in the finest pear orchards of France. These French pears, introduced in the United States, reach perfection only in our own section of the country.

This is due to two things: First, the peculiarities of our climate; second, the intensive methods of culture which are employed here.

In regard to climate, we have almost the same conditions as has England and France, where the finest European fruit is raised. The warm waters of the Gulf stream, bathing the shores of that coast of Europe, provide the requisite heat and moisture, while the Japan current flows along by our own coast and gives us the same conditions—the secret of our wonderful climate in this northern latitude.

In spraying, pruning and cultivation our fruit raisers have come to be specialists and the acknowledged leaders of all intensive cultivation in the world. The secret of perfect health of various sprays, their chief method of producing fruit that is perfect in size, shape, color and flavor is by expert pruning. The finest pear and apple trees of Oregon are pruned back so that the mature tree is very small—easily handled to keep in health and the growth of stem and leaf repressed so that the energy of the tree is diverted to the formation of fruit. Anyone who has even seen a noted orchardist worth thousands of dollars an acre, is surprised at the small size of the trees. They look almost like dwarfs in comparison with the natural size attained by the same trees when they are not pruned.

**Dwarf Fruit Trees.** In England and northern France, particularly in the vicinity of Paris, are grown miles of what is called dwarf fruit. These are trees which are not only pruned in their growth above ground, but are also restricted in their root growth. That is, for instance, a pear tree scion is grafted onto a quince root. Now the quince grows slowly and the pear tree is practically pruned back in its root growth so that it cannot develop to natural size. Now, adding to this restriction of the roots a severe pruning of the tops and we will have a tree which manifests its energy in the only way left open for it—in the production of fruit at a very early age—from one to three years, usually after it is set out. And just as our intensively cultivated Oregon fruit is more prolific than other fruit, so this dwarf fruit is finer in every way than the best fruit we now raise in our best orchards.

All dwarf fruit is similarly grafted on to slower growing roots of some suitable kind, which is the primary cause of the dwarfing of the tops. This dwarf fruit is little known here, but it has been successfully grown in the east, particularly in New York state—where the climate is not nearly so suitable for it as it is here—for

over 100 years and it is recommended as most desirable for local use by those of our seedsmen and nurserymen who have it for sale. It is also highly indorsed by the chief in horticulture of our Oregon Agricultural college, who asked me to call this special kind of fruit to your attention and recommend it particularly for use in home gardens for two reasons—first, because it takes up so little room in the garden, and second because the fruit is of such superior quality.

While the quantity of fruit raised per tree is no larger as with ordinary or "standard" trees, the quality is so much finer that the fruit from a tree would sell for about as much as a standard tree. We are used to reading of most remarkable prices paid for Oregon fruit, yet this dwarf fruit ranks with hothouse products. Single apples or pears sell in Europe for 50 cents or more each, and peaches for the table of royalty, are said to have brought \$15 apiece.

**Desirable Locations for Growth.** The most desirable place to grow this dwarf fruit is in the home gardens of our city and its suburbs, where it is always right under the eye of the gardener and can have his constant care and training. He has also the pleasure of watching its growth and development until it graces the home table, the admiration and envy of all his friends.

Besides the use in small home gardens, dwarf fruit is desirable for suburban places of some size where the owner wishes a large variety of fruit of very fine quality, as it is possible to plant 100 to 500 dwarf fruit trees on a quarter acre where less than a dozen standard trees could be grown. This dwarf fruit also is most ornamental and intensely interesting, from its very novelty to all who see it so that it is a fine addition to the ornamentation of suburban grounds. Dwarf fruit trees are also used as orchard "fillers" set in between rows of standard trees. As they come into bearing the second or third year after planting, they give a return from the soil long before the standard fruit begins to bear. They would also be most interesting planted in our school gardens or in our parks, and are valuable to the old and to those who rent their homes in that they will bear while these persons are unable to enjoy them.

**Fruit Trained Like Vines.** Small tree form. It is often used in another way; that is, pruned to grow like a vine and tied to fences, walls, trellises or the sides of a building. Perhaps you remember seeing the wonderful fruit that was trained in this way in Seattle at the A. Y. Exposition or have heard our returned soldiers tell of it in France. This is really the most fascinating way to train this fruit and makes it the greatest novelty. Besides this, it is grown in this way like a vine, it takes up practically no room at all and can be grown anywhere—right in the heart of the city even, where there are a few feet of ground alongside the wall of a building to train it on.

Or, it is most ornamental trained on back fences or any unsightly place where there is a firm foundation—either brick or stone or boards or wire—for fastening it exactly in place, as it must always be trained

**The Advantages of Dwarf Fruit.** It may be well to classify and compare the advantages and the disadvantages of raising dwarf fruit. To repeat the advantages previously given we find three principal ones:



## Vegetables at your own price

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in exact shape to afford room for the development of each branch which is allowed to grow. This is as necessary to plant vegetables in the garden in straight rows a fixed distance apart, and to thin them so that they stand a certain set distance apart in the row. It is the only way in which perfect development of each individual plant or fruit is achieved. Various set forms are used in training up this dwarf fruit. Pears or apples are often planted about 2 feet apart and each trimmed to one central stalk, which are all trained up vertically or obliquely in parallel rows. These are called "cordons"—like so many cords stretched from wall to wall, and then up vertically in training up this dwarf fruit.

**Disadvantages of Dwarf Fruit.** 1. Greater expense. Each tree costs more because it must be grafted to begin with. Then so many more are required to plant a given area of ground that this also increases the cost. 2. The trees are shorter lived. This is not true of all dwarfs, however. It depends on how well the top grafts unite with the roots. 3. They require more care. Especially in the case of the pear, the extra care is in pruning. The spraying and general care is the same as for standard trees, except that it is easier for small trees. 4. They are not usually a commercial success, as high-priced fruit does not sell well everywhere, but the dwarf is educated up to high-priced fruit if one had a surplus to dispose of.

5. Growing dwarf fruit is practically unknown here, and might be regarded in the nature of an experiment, but some of this fruit has been planted here and has done well. Mr. Fage, horticulturist of the Portland Seed company, has a dwarf pear tree in his garden that is a notable success. It began bearing two years after it was planted and has borne the finest pears every year since, being now ten years old. Mr. Lewis of Russellville has fine dwarf apple trees growing and bearing every year

and recommends dwarf apples and pears for the home garden especially.

## HOW TO SAVE BABY CHICKS

Head of International Baby Chick Association Gives Good Advice to Poultry Raisers.

Herbert H. Knapp, Tre. Ohio president of the International Baby Chick Association, writes:

"In our own plant we found Conkey's Buttermilk Starting Feed. It is a complete and sure way to bring up chicks."

"Your chain of feeds was a happy thought. Three Buttermilk Mashers for Starting, Growing and Laying are complete and surely do bring results."

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Portland Oregonian, February 13  
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