

In Field and Garden

FLOWERING SHRUBS.

Some Hardy Varieties.

As this is the time for planting hardy flowering shrubs, we propose to mention a few of the best of these which are not grown in gardens so much as they deserve, says the London Times. The ordinary gardener is still timid in his use of flowering shrubs, partly from ignorance and partly because he does not know what to do with them. They never look well grown in an indiscriminate mixture; indeed, the very word shrubbery has an ugly sound, suggesting the gloomy chaos of undergrowth that is employed to make suburban gardens look larger than they are. There is no reason why we should isolate flowering shrubs in a shrubbery. They may be treated like other flowering plants, and, if they do not grow too large, planted in borders, where most of them can be cut back after flowering, and so kept compact. It is safest to plant the less hardy plants in spring, but when so planted they must be protected from drought during the following summer.

Aesculus parviflora (or *macrostachya*) is a dwarf species of horse chestnut which makes a spreading bush about 6 feet high. It has white scented flowers which continue for some time and are at their best in August. As its foliage is beautiful it is a fine shrub for one end of a large border. It requires little pruning, but should be thinned out often, as it makes many suckers. *Buddleia variabilis* is a rampant growing shrub, useful for the back of a large border. It thrives best in light rich soils and in warm places, and grows about 8 feet high, bearing long plumes of lavender flowers with a yellow centre about July. The variety *Veitchii* is finer than the type. Most species of *Ceanothus* require the protection of a wall; and *C. Veitchianus* is one of the finest of wall shrubs. *C. americanus*, however, is hardy in the open in warm gardens, though often cut back in winter. It grows about 4 feet high, and has white flowers. It is not so beautiful as *C. azureus*, which may also be grown in the open in the south of England, though a very hard winter may kill it. It grows about 5 feet high, and has plumes of lavender blue flowers in May. The variety *Gloire de Versailles* is the finest.

Choisya ternata is a most valuable shrub for light soils, and is usually hardy without the protection of a wall in sheltered sunny places. Where it grows too large it can be cut back after flowering. Its white blossoms are at their best in May, but its glossy leaves look beautiful at all times. It is an excellent shrub for a large border, growing usually only about 4 feet to 5 feet high.

Cistus—There are many species of varying hardiness and size. *C. laurifolius* is one of the hardiest and largest. It grows about 5 feet high, and has large pure white flowers. *C. cyprinus* (commonly called *Landanifertus*) is like it but grows a little taller and has dark purple blotches on the flowers. It is almost as hardy. *C. crispus* has large soft pink flowers, and grows about 3 feet high. It is hardy in most winters. *C. purpureus* is dwarfier and has brighter and larger pink flowers. It is a most valuable shrub for the rock garden, but less hardy. *C. formosus* has grey leaves and bright yellow flowers blotched with brown; it is a low growing and can easily be increased by layers. It is also one of the hardiest and a most brilliant little shrub. *C. florentinus* grows into a wide bush about 3 feet high, and has white flowers borne for a long time. It is usually hardy in the south of England. *C. lusitanicus*, probably a hybrid between this and *C. cyprinus*, is equally valuable. All *Cistus* like a light soil, full sun, and a position sheltered from the wind. They can endure any amount of drought when established, and should be cut back fairly hard after flowering. In suitable soil and position they are far harder than is commonly supposed.

Clethra—These shrubs, less grown than they deserve, are particularly valuable for their late flowering. *C. alnifolia* is the commonest and perhaps the hardiest. It grows about 4 ft. high and has white flowers in August and September. The variety *Tomentosa* flowers a little later and has larger blossoms. *C. arborea* is a larger species, but less hardy. *Clethras* thrive in ordinary light soil, but should be protected from drought until they are established. Of the many species of *Cytisus* we will mention only *C. praecox*, one of the finest of spring flowering shrubs, and *C. purpureus*, which is equally valuable. The latter, if planted in fairly rich light soil, will throw out many suckers and spread into a dwarf bush 4 ft. across. It is most valuable either for large rock gardens or for the front of a large border. It also looks well at the top of a bank, where it can spread downwards. *Caryopteris mastacantha* is a very valuable dwarf autumn blooming shrub. It has been called the blue *Spiraea*. It grows 2 ft. to 3 ft. high, and bears its lavender blue flowers in September and October. It seems to be quite hardy, and has only this defect—that after cold, sunless summers it sometimes flowers too late. It should be planted in good soil in a very sunny place, and all dead wood should be removed in spring.

Escallonia macrantha can be grown in the open in the South of England if it is sheltered from north and east winds. It is a very beautiful shrub both in flower and in leaf, and grows quickly. *E. philippiana* is also fairly hardy, but not so beautiful.

Garrya elliptica is a shrub remarkable both for the beauty of its leaves and for its winter flowering catkins, which often appear in December. It makes a fine wall shrub, but can also be grown as a bush in warm places, and seems to be quite hardy.

The *Wych Hazel* (*Hamamelis arborea*) has an equal winter beauty with its yellow flowers on the bare branches. It is very easily grown, and a wonderful effect may be produced if the earliest flowering bulbs are planted about it.

Ligustrum.—The ordinary privet is a tiresome shrub, but *L. japonicum*, *L. lucidum*, and *L. sinense* are all worth growing for the beauty both of their flowers and leaves. *L. sinense* will grow into a small tree, and is covered with white flowers in July. All will thrive in any decent soil.

Of the *Olearias*, *O. haasti* is the hardiest, but *O. stellulata* (*Eurybia gunniana*) is the most beautiful. It is a dwarf shrub covered with white daisy-like flowers in late summer. It is fairly hardy in light soil and warm sheltered places. Its worst enemies are the cold winds of early spring.

Philadelphus.—The larger species of *Syringa* are well known, but there are several dwarf varieties of the hybrid *P. lemoinei* which deserve to be better known, and are excellent border shrubs. Of these, *Candelabra* has the largest flowers, and *Gerbe de Neige* is the dwarfest. They are easily grown, and do not weaken themselves with suckers, like some of the other species.

Prunus Amygdalus.—The larger almonds are well known. The dwarf almond, *P. Amygdalus nanus*, is not often seen, but is a most beautiful little early flowering shrub only about 2 ft. high, and very easily grown either in the rock garden or the front of a border. It flowers a little later than the larger kinds, and can be easily increased by means of suckers.

Pyrus japonica should be grown more often as a bush. There is a beautiful white variety, and *Knaphill* scarlet is brighter in color than the type. There is also a pink variety with flowers like apple blossom, which is well worth growing. All should be cut back after flowering and planted in a sunny position.

LECTURE ON POULTRY HANDLING

In a very interesting lecture at Tacoma a few days ago, Mr. F. H. Rau, on the question of poultry handling, said:

"When I am asked the question, 'Is there any money in poultry?' I always say 'Yes.' I can prove by illustration where there is more money in poultry than anything else that is produced on the farm.

"Poultry-keeping is a very simple occupation and one that does not require a college education to bring success, but inasmuch as a good education helps out in any kind of work, so it is in the chicken business. Successful poultry-keeping depends a great deal on regularity and good care, but some people overdo it; in other words, kill their fowl with kindness. Too much care is as bad as lack of it. Again, a great many do not have success, because they do not understand the fowl. They do not know what the natural requirements are.

Origin of Poultry

"I want to tell you where the fowl originated from. They were first discovered in the jungles of East India. The fowl in its natural state roams the jungles and secures its food by walking for miles and spending hours to get a full crop. Oftentimes after walking all day, it finds a few grubs, bits of fruit and berries. When overtaken by night it roosts in the branches of trees; quite a contrast from the tight, comfortable houses of today. From 12 to 18 eggs are laid, and in most cases every one hatched. When these little birds are hatched, there is no one there to stuff them with so many of the life-giving preparations that are on the market today. Instead, they remain in the nest until they have strength to follow the mother bird. Finally, the natives in that country decided to confine the fowls (and those fowls, after being confined, laid their natural amount of eggs. Our domestic hens today will lay 200 or more eggs a year).

Origin of Breeds

"How do we get the various breeds that we now have? Someone noticed there was a shade of difference in the color of the birds, and they selected those different colors and mated them, each time selecting a lighter shade until they had white; reversing it until they had black, and so on until we have the many different breeds of today. The same thing was done in getting size and shape. We have in our 'Standard of Perfection' some 135 varieties of fowls, with 14 different classes. The only classes we are going to pay any attention to are the most popular ones, of which the American ranks first, the Mediterranean second, English third, and Asiatic fourth. The birds I have mentioned are money-makers at least, and these are the kind to breed. Among the Americans we find the Plymouth Rocks, Wyandottes, Rhode Island Reds and White Silver Persians.

"In regard to the best breeds to select, I would say to select the one best suited to the purpose. If for eggs, select the light breed for this reason: A light breed will lay as many eggs as the heavier breed and consume less food. Some of the American utility fowl are splendid as a dual purpose fowl. They produce a large amount of eggs and are a good ta-

ble fowl. There are certain amounts of weights in fowls that it requires food to keep up. A Leghorn weighing three or four pounds will lay as many eggs if not more than a hen weighing 10 pounds. So it is very easy to see that there is more money in small fowl for egg production than large.

For Table Purposes

"Small fowl get hard in flesh and make good table fowl only until about three months old, after which the meat gets coarse and tough. The best all round table fowl is the Wyandotte; also the Rocks, Orpingtons and Rhode Island Reds. Sometimes it is a mistaken idea that one fowl is better suited to a climate than another. Most fowls pay very little attention to climatic changes. The hotel and restaurant trade prefer a medium sized fowl because in serving chicken, they get no more for a large joint than a medium sized one. We must consider all these points when making a start. The best way for beginners to know and select a popular breed is to visit the different poultry yards in different localities, and the breed that is most in evidence is the one to select."

Mr. Rau emphasized the fact that it always pays to produce the best because even when the market is flooded you can dispose of a first-class article.

At the conclusion of his speech, Mr. Rau in replying to questions brought out the following points:

Points Worth Knowing

The Northwest does not express a preference for either white or brown eggs. The only preference I have noticed is for the largest egg for the money. The size of the bird has very little to do with the size of the egg. The egg laid by the White Leghorn is of a good marketable size, white in color, and the hens run from two and one-half to four pounds. However, they are not the only breeds that have produced more than 200 eggs a year. I know of one Light Brahma with a record of 230; White Rocks, 240; records of White Wyandottes and Brown Leghorns that have done quite as well. The reason you will find more heavy layers in the White Leghorn class is perhaps because they have been bred for eggs and nothing else, and that probably explains the reason why their flesh is so tough. The Black Minorcas are good average layers of a large white egg, but you cannot afford to keep Minorcas and sell the eggs on the market in competition with Leghorn eggs which are produced cheaper. The Andalusians as egg-producers are not coming up to the standard that was set for them when first introduced, and they are now dropping out. Referring again to what is the best table fowl, it depends on the size you are going to market. The White Wyandotte is one of the best, because it is quick maturing, and also those represented by the Rock, the American class, or the English class. The Leghorn is not as good for eating purposes. Fowls of the Asiatic class have coarser grained flesh. The Leghorn of the chicken family is the same as the race horse to the horse family. Whenever you increase the size too much you will get into the disposition of the Rock, or some other American class chicken.

THE TREATMENT OF MANURES

In the intensive cultivation which is so necessary on the limited acreage of the farms of this Island if a return is to be looked for on the initial outlay, it behoves the farmer or gardener to utilize to the utmost advantage such manures as he ready to his hand, from stable, cowhouse, poultry-house or seashore.

As we know, the nitrification of manure is necessary, i.e., its decomposition first into nitrites and then into nitrates, in which form alone can plants draw their food supplies from it. In the case of the pile of farmyard manure, two objects have to be worked for: the prevention of loss of ammonia by evaporation or by drainage of the liquid portion. The urine contains nearly two-thirds of the potential plant food of the whole mass, and when this is carelessly piled on the ground outdoors the loss from both causes may be imagined. The more the liquid is soaked up by the litter and the more complete the decomposition, the sooner will food be available for the plants.

Where sufficient capital is at command it will pay to build a tank into which the liquid may drain, and from which it may be pumped over the heap from time to time, and also to stack the manure under cover; this will prevent evaporation and the washing out of the goodness by rain. A less costly method is to cement the bottom of a pit in the ground and to cover the pile with sheets of galvanized iron.

Where the seashore is close at hand, it is well to remember that seaweed contains much plant food when well decomposed, a ton containing what would cost several dollars to buy. Potatoes are a crop that responds readily to this manure.

Away in the country night soil will be found perhaps the most potent manure of all. It is so strong that it should never be applied till diluted with many times its own volume of ordinary soil. It is a curious fact that perfectly decomposed dry earth grows capable of decomposing an ever-increasing amount of this manure, and at the same time deodorizing it. The process of this is simple and rapid when once the principle is grasped that the air plays a great part, and that therefore only a thin covering of soil should be placed over it, and

preferably that mixed with night soil already. By digging a shallow ditch down the garden and covering the fresh manure with a thin layer of old night soil there is no smell, and decomposition soon takes place. In this treatment, as in the case of farmyard manure, too much wet retards the bacterial action by excluding the air. This method of disposing of the sewage of the house is the ideal one. By transforming it by nature's methods without any delay into plant food, at no time is it dangerous to the health of man, and the oftentimes deadly cesspool is entirely done away with.

In the case of bottom lands which are peat bog and sour, the acidity may be got rid of by draining, plowing deep enough to break up the pan, which prevents percolation of the water downwards, and the use of lime, which liberates stores of plant foods which before have not been available.

Leaf manure, bracken, wood ashes all may be pressed into service, but in the case of bracken, it should be cut green.

FARM NOTES.

Get the old horse's teeth examined. He is now forced to subsist on dry feed, which is more difficult to masticate than the green fodder, and unless the horse's teeth are kept filed even there is all likelihood that he will not thrive very well.

When horses cannot be protected from the cold, raw winter weather, they should under no consideration be clipped in the fall. It is cruel to deprive an animal of nature's protective coat and not furnish him with some artificial means of keeping up the necessary body heat.

The time has now arrived when the cold weather may set in at any time. It is generally conceded that soil plowed in the autumn gives a better crop the following year than land left until spring to be plowed. There are several reasons for this: Plowing to a considerable depth in the fall increases the water-holding capacity of the soil. Another good effect upon the soil resulting from fall-plowing is the greater surface exposed to the action of the frost, which is so helpful to a clay soil, flocculating the particles and overcoming its extreme tenacity. Rush the plowing during the short time left.

The use of the outdoor blanket is as important as the use of the stable blanket. If the horse is allowed to stand outdoors either for a short or for a long time, he should be well blanketed. If one is going to stop but a short time, the temptation is strong not to blanket the animal. The horse cools off rapidly and may chill, so that it is best to blanket him only for a moment. Again, in the spring when the weather is fair, one is likely to think that no ill will result from leaving the animal unblanketed; and yet he may chill as before. It is best on stopping the animal to see that he is well protected.—M. W. Harper, in "Manual of Farm Animals."

The horse that is at hard work should get his largest feed at night. He then has more time to eat it, and while his body is at rest his digestive organs are given an opportunity to do their best work. Fill the mangers when feeding up for the night. The horse's stomach is small. Owing to this care must be taken in supplying hay, water and grain, that they be given in the best possible order. It has been shown by investigators that the horse's stomach fills and empties several times during the partaking of a large meal. The material first taken is quickly crowded on into the intestines. From this the logical order of feeding and watering appears to be water first, roughage next, and the concentrate material last, in order that it be acted upon to the fullest extent by the digestive juices of the stomach.

Egg-eating is a bad vice which, if once acquired by the flock is somewhat hard to overcome. It is often caused by soft and thin-shelled eggs being broken in the nest. A few broken eggs eaten from the nest has a tendency to teach the hens to break eggs themselves. If the vice would remain confined to a few individuals, it would not be so troublesome, but such is not the case. A few egg-eating hens soon communicate the vice to the entire flock. Where one or two hens are affected, it is often advisable to kill them, but if it has spread to many members of the flock this is impracticable. If the hens can be prevented from eating the eggs for a couple of weeks, further trouble is not likely to occur. Prevention consists in keeping the nests dark. Two or three weeks of such treatment will usually effect a cure. Feed the hens plenty of grit and lime material to produce thicker shells on the eggs.

In the feeding of hogs, where soaked feed forms the main portion of the ration, care must be taken that too much water is not used. Pigs compelled to eat food containing too high a percentage of water will not do as well, especially in the cold weather, as if only the required amount of moisture is present in their diet. It will take considerable of the energy derived from the food to raise the cold water to the body temperature,

and, besides, an over supply of moisture is not conducive to the most thorough digestion of the solids in the food. In soaking ground feed, it is important that the mixture be made about the consistency of a thick porridge, and that it be soaked about twelve hours before feeding. This will be found more palatable, and is of higher feeding value than if the meal is fed in the same quantity, but in a thinner, more sloppy condition.

The value of turnips for the winter feeding of sheep was shown by an experiment carried on in England, and cited by Shepherd Boy, where a number of these were fed on oil meal, clover hay and turnips, while others were fed on oil meal and clover hay, without the addition of succulent food. In the same time, the sheep receiving the roots made gains of forty-two pounds per head, while those getting the dry food alone made gains of only twenty-six pounds per head. In fattening sheep, succulent food is necessary, if the greatest possible gains are to be expected. Turnips are much relished by this class of stock, and can be safely fed in reasonable quantity to the breeding stock as well as to the market classes. Care must be taken in feeding pregnant ewes that they do not get too large a quantity of roots, as they tend to produce an overlarge and flabby condition of the foetus, often causing difficult parturition and weak lambs at birth.

All domestic animals, whether the milch cow or the fattening steer, should have a reasonable amount of exercise under comfortable conditions. Little sympathy should be shown towards the modern fad of tying cows by the head in one spot for five or six months, under the plea that exercise is work, and work costs food. The statement had better be in accordance with the experience of all time, that exercise is health and vigor, and that food is well used in maintaining these. The cow is more than a machine; she is a sentient being, susceptible to many of the influences which are essential to the physical welfare of the human species. Let no one take this opinion as an excuse for the cruel and wasteful exposure of farm animals to inclement weather, which is so often observed, for this is simply a violation of the laws of kindness and economy in the other direction.—Jordan's "Feeding of Animals."

Seed potatoes in storage have three very definite requirements. They must be kept in a cool place, well ventilated and dark. That the potatoes be kept cool is most important. The best temperature is from 33 to 35 degrees. If the temperature falls below 32 degrees there is danger of freezing, although it takes a slightly lower temperature to freeze potatoes than water. Good ventilation is necessary in order to prevent the spread of rot, and it is well to keep the potatoes dark, so they will not start to sprout at any time. A cool, dark, well ventilated cellar fairly dry is the best place to store seed potatoes on the ordinary farm. As spring comes on, seed potatoes should not be allowed to send out the long, pale, spindly shoots so often seen. This may be prevented by keeping the potatoes cool and dark. Some of the eastern growers, three or four weeks before growing time, spread their potatoes out in the light at a temperature of 60 to 70 degrees, and here allow them to develop sprouts a half to an inch long. These are strong, stubby little sprouts, that are not broken off in planting. It is said this process both hastens the maturity of the crop and increases the yield.

All varieties and types of chickens are fattened in this country, no special attention being devoted to developing strains or special types peculiarly adapted to produce a high quality of flesh, or to give especially good results in fattening. Several breeds give good results in fattening, and these are preferred by men who make a specialty of feeding poultry in the following order: Plymouth Rocks, Wyandottes, Rhode Island Reds, or taken as a whole, birds of the general purpose breeds. The feeders discourage the use of birds of the Mediterranean class, such as the Brown and White Leghorns and the Minorcas, because these birds average poorer results throughout the season in the feeding tests and they mature light, while the trade demands a heavy fowl. In order to make the farmer raise chickens of the first rather than of the second mentioned, the packer, and consequently the small poultry buyer, often pays from 1 to 3 cents a pound less for light weight hens. Much attention should be paid to buying poultry on a quality basis, thus showing the producer the gain which he may realize by keeping good poultry of the general purpose breeds and giving the birds proper attention and feed before shipping to market. In some sections the packers have exchanged pure-bred cockerels of the general purpose breeds for the mongrel and light weight cocks kept by the farmers, thus rapidly improving the quality of stock in the localities where they obtain their supplies. The Orpingtons, various game crosses and the Dorking make good poultry for fattening, but are not found in any appreciable numbers in the Middle West, although the Orpingtons have increased considerably in the last few years.