

## Garden and Orchard.

## The Clematis.

The coldness and bleakness of farm-houses and out-buildings is one of the greatest blots on our rural landscapes. Looking at the farmer's house and surroundings, it often seems as if he were so intent on cropping his fields as to have no time left to clothe his house with beauty and plenty. Where any attempt is made it seldom gets beyond a Grape Vine or Virginia Creeper, with occasionally a climbing Rose or Honey-suckle thrown in for variety. Now, there is no manner of necessity for this tiresome monotony of clothing, for in the genus Clematis we have now almost an infinity of variety in size, form and color of leaf and flower. The Clematis is also perfectly hardy, and easily grown in almost any soil, subject to the roughest treatment, and thrives and flowers freely under any system of management and training, or with neither, for some of the most perfect specimens ever seen by the writer had no training whatever. Properly treated, the Clematis may be had in flower freely from May to November. The flowers are almost infinitely varied in colors and in size, being mere white specks and stars, as it were, expanding into wide spreads of beautifully colored flowers from four to eight inches in diameter; these are sweet as the Hawthorn or May at its best; others, some equally or more beautiful, have little or no perfume. The colors have a wide range and infinite variety from crimson to pure white, through pure maroon, purple, violet, mauve, lavender, sky blue, French white. The diversity of form and size of the flowers is even more marked than their variety of color. Some of them are very small, others extremely large. There are likewise double Clematis as well as single, wide spreading and narrow flowers, furnished with ground petals and without. The leaflets and sepals of the flowers are also characterized by the widest differences of color, form and size, disposition and arrangements.

The Clematis is also adapted to all purposes or places for which any climbers can be used. For covering the walls of houses, encircling the roofs of out-buildings, clothing the bare stumps of trees or walls of any and every aspect, character, or height, verandahs, summer-houses, arbours, seats, running over rocks or mounds, dropping down the sides of rough banks or dells, &c., the Clematis has no rival or equal. It is also well adapted for forming edgings for flower beds, or picturesque masses in herbaceous beds or borders, or in front of shrubberies and plantations. Few plants are better adapted for forming unique and picturesque specimen plants on lawns, or intermixing with masses of roses and other flowering shrubs.

As a pot plant, too, the Clematis is strikingly effective grown over a few stakes or trained over trellises. Trained thus and treated liberally, the Clematis speedily reaches a large size, and few plants are more striking than masses of these in full bloom, averaging from six to ten feet in height, and four or five through, smothered with bloom.

They are by no means particular about soil, yet few pay better for liberal treatment. Some grow them almost wholly in peat, others prefer loam with a little leaf mould or rotten dung. Perhaps on the whole a mixture of equal parts loam and leaf mould, with rotten manure or mortar rubbish, is best, for the plants seem to delight in this mixture of vegetable substances, associated with a full complement of calcareous matter.

The Clematis may have its leading shoots trained over a trellis, houses, or walls in any direction desired, horizontally, vertically, diagonally, or spirally, for it is far more flexible than a grape vine or a rose. From these leading shoots the lateral branches may be allowed to ramble at their own will. Many of the late-flowering varieties may be cut down after flowering, and allowed to spring up afresh from the ground every year. The early spring flowering varieties that bloom on the old wood may be cut back very much as a rose, and spurred in pretty closely as a grape vine; but, as already remarked, the Clematis in its best form should be pruned but little and trained perhaps less. Few plants can be better adapted for farm gardens or those of amateurs and cottagers, as it would be impossible to find any class of plants within the entire range of horticulture that would yield such a full harvest of beauty with so little skill and care as the Clematis.

## Manures for the Garden.

The effect of all new and fresh manures—the excrement of animals—is to engender heat in the process of fermentation. The manure from cattle—and of all animals that chew the cud—is adapted to light soils, that of horses, hogs and birds is heating in its effects and adapted to heavy soils. Of all manures of this class that of birds is the richest, a fact which those who keep much poultry and also cultivate a kitchen garden will do well to remember; but it should be thoroughly mixed with the soil, for in the fresh state, seeds in contact with it will not germinate, and the roots of plants are destroyed by its caustic action. But when it is thoroughly incorporated with the soil its effects are great in stimulating plant growth. Its superior value is on account of the urine it contains. Its immediate effects depend upon the quantity of soluble matter present, and this varies with its age. Fermentation robs it of a portion of ammonia, and hence it is advisable to collect it as often as once a week, and mix with it earth, plaster and a little salt. Treated in this way it does not differ much from Peruvian guano, which is considered the best of concentrated manures for general purposes.

Manure from sheep yards and pig sties is rich in nitrogen, and ferments or engenders heat rapidly. A liberal application of these and other similar manures from the sheds and stables turned under in the spring will render the garden soil warm, rich and friable, and stimulate the early growth of vegetables.—[Prairie Farmer.]

## How to Manage Cuttings.

In reply to a correspondent, the Floral Cabinet gives the following directions in regard to the making and managing of plant cuttings:

In selecting a cutting, a great deal depends upon the judicious choice; if the slip is too young and full of fresh sap, it will fade away from too much evaporation; if it is too old—hard and woody—it will take a great while to strike root.

You must take a cutting that is perfectly ripened and is from a vigorous shoot, yet a little hardened at the base. It is also essential to have a bud or joint at or near the end of a cutting, as all roots strike from it; and the nearer it is to the base, the greater your chance of success.

Plant your cuttings in common red pots filled half full of rich loam and two inches of sand on top (scouring sand will do, but not sea sand); wet this thoroughly, and put the cuttings close around the edge of the pot, for if the bud or joint comes in contact with the surface of the pot, it seems to strike root more quickly. Pull off the lower leaves before you plant the cutting. Press the wet sand tightly about the tiny stem, for a great deal of your success in raising the cutting depends upon the close contact of the sand with the stem. When the cuttings are firmly planted, cover them with a glass shade if possible, as it will greatly promote the growth of the plant.

Moisture, light and heat are the three essentials to plant life—without them no cutting will start.

Shade for two or three days from the sunlight, but don't let the sand become dry; then give all the sun you can obtain, keep up a good supply of moisture, and you can hardly fail to root most of your cuttings.

## Woodpecker vs. Apple Worm.

If woodpeckers are plenty in the orchard, they will take care of the apple worm, even when cuddled up under the paper bands, dreaming of wings, and do away with the necessity of examining the bands every week or two. At first I thought the codling moth had hatched in advance of our bi-weekly visit, and escaped the rub of the smoothing-iron by boring through bands instead of escaping from under them, but the rattling stroke of the red-headed woodpecker a few trees off, and the similar peck of his industrious little white and black-backed downy cousin (*Picus pubescens*) told the story of the holes, and promised that just in proportion as the little crops were filled the apple crop would prosper. From some bands every larva and pupa had been dislodged by our thorny-tongued benefactor; indeed if any were present where he had been, they had evidently come since his departure and before his return. A barrel of apples for every one is a small valuation. If swine and sheep can be kept in the orchard, so much the better, but in any event I mean to try to keep in the woodpeckers and keep out the gunners, and ask and expect that every tree will cease to be a wormy nuisance, and "comfort me with apples" fit for other uses than vinegar and the still.—[Ex.]

## Attention to Grape Vines.

Before the buds begin to swell grape vines should be securely fastened to the frame or trellis, lest the young and tender shoots be broken by the first storm and the prospective crop be materially lessened. The arms may be tied with coarse tarred twine, and for the new growth any cheap material, like bass matting, will answer, for in case it gives way it can readily be replaced on the occasion of one of the frequent visits to the vineyard. We say frequent visits, for it is part of the duty of the vine-dresser to go over his grounds every few days, and, among other things, make sure that all loose shoots are securely supported. He will also rub off all superfluous buds. Each well-developed eye will throw out two shoots. One of these from the start takes the lead, so that at the first glance it can be seen which is the best to leave for fruiting. The sooner the superfluous buds are removed the better for those remaining. On thrifty, bearing vines it frequently happens that quantities of these sap shoots are pushed out on the lower part of the arms of the old wood. These should all be rubbed off at the same time, for if allowed to grow they will only weaken the fruit bearing canes. When it is desirable to renew an arm, a single shoot may be selected and trained for that purpose.—[New York Tribune.]

## Cabbage Pests.

Farmers in this country have experienced relief from grubs at the roots of cabbage by loosening the earth close to the roots with a hoe, and pouring about the plant one-fourth of a pint of soft soap and water two or three times during the season. The solution consists of one part soft soap to twelve parts water. Weaker suds poured on top, it is claimed by some gardeners, will destroy the green worm.

A method of preventing the inroads of the cabbage grub is to make each plant unpalatable to the grub. This may be done in the following manner: In the spring procure some fresh burned lime, let it become air slacked, and mix it with an equal quantity of soot. In planting, the holes are made with a trowel in the usual way; each plant is dropped into its place and an inch of soil put over the roots, a good watering given first, then a moderate handful of soot and lime mixture thrown into each hole, and the remaining soil filled in. Equal parts of soot and fine garden soil mixed with water to the consistency of thin mortar, with the plants dipped into the mixture up to the base of the leaves previous to planting, is also advised as a preventive to clubbing. Wood ashes, mixed with water poured into the holes, has been tried with success.

For cabbage worms, Professor Riley recommends hot water judiciously applied from a watering pot. This must be done with caution, and, therefore, is liable in careless hands to do more harm than good. Professor Riley also advises, for the same purpose, applying repeatedly a solution of whale-oil soap and water, in proportion of one pound of soap to six gallons of water. Pieces of board, raised an inch above the surface of the ground, afford an opportunity of examining and destroying once or twice each week the transforming larvae under them.

THE SQUASH-VINE BORER.—Another pest, very troublesome to those who grow squash for market, is the squash-vine borer. This moth is orange-colored, spotted with black, and is named *Melittia cucurbita*. The female is said to lay eggs on the vine, close to the roots, from the middle of July to the middle of August, and the larva eats out the heart of the vine and kills it. I have seen the moths laying eggs in different parts of the vine and the young worms eating into the vine far from the roots, so that to cover the lower part of the vine with soil is unavailing. But as the squash roots at every joint, if these joints are covered with soil to encourage the growth of roots, the vine may die below, but will still grow above the rooted joints. When the worms are in the vines, the latter may be slit with a knife and the worms killed. A liberal application of Peruvian guano, by producing a vigorous growth, will enable the vines to resist the injury of the borers, and by its strong scent will drive off the moths.

From small beginnings came our plump cereal grains, our rich, juicy and delicious fruits, our nutritious esculents, and savory garden vegetables.