The botanical name of sweet pea is Lathyrus odoratus (sweet scented). The orignal species was introduced to gardens in 1700, of which there were four varieties—white, pink and white, deep purple and a dull red. Previous to 1850 there were perhaps a dozen recognized varieties—viz.: Painted Lady, rose and white; Butterfly, white laced with lavender; Fairy Queen, pink; Invincible, striped red and white; Scarlet Gem, scarlet; King of Prussia, purple; Violet Queen, and a variety which was nearly black, besides a few other varieties, names of which I do not now recall.

In coloring sweet peas have a wider range, with more numerous shades, than any other single group of plants. It is true we have not a scarlet as bright as Lobelia cardinalis or a yellow as glittering as a sunflower, or a blue as dense as Delphinium formosum. The best scarlet is King Edward VII; the best yellow, the Hon. Mrs. McKenyon; the best blue, Flora Norton; and the best white is Dorothy Eckford. Mr. Eckford, in England, has done more in sweet pea development than any other person, and that within the last twenty-five years.

The exquiste shades between the blues, reds and yellows can scarcely be imagined, especially among the mauves, buffs and pinks. It is not alone in the coloring that such advances have been made, but the individual flowers are nearly twice as large, and three and four are often open at one time, whereas with the older kinds there were scarcely ever more than two flowers, and often one flower, on each stem. The delicious perfume has been maintained with all these changes.

The enormous quantities of sweet peas sown all over the temperate world seem incredible. California is now the center where the most sweet pease are grown, some firms growing as many as 300 and 400 acres each. These are grown for seed, of course.

Now if we expect to have fine sweet peas they must be well and properly treated, otherwise we cannot get the best results. Sweet peas delight in good living—good and deep soil, well drained, plenty of half rotten manure, and lots and lots of water, and they must have something to cling to. The quantity to be grown depends upon the amount of room at disposal, the convenience for growing them, and perhaps the size of one's pocketbook.

Where the good soil is not deep it is best to dig a trench eighteen inches deep and a foot wide, throw out and take away the poor soil, be it sand or clay, then fill in with old sods, rotten manure, and other good soil to within six inches of the top. Tread this down lightly, then on this sow two rows of peas, each row three inches from the outside, leaving about six inches space in the center of the trench. Cover the seed an inch deep, and as soon as the plants are three or four inches high draw the soil from the top of the ground among them and at the time you will prepare to put in the wire trellic. Secure this thoroughly in the center of the trench, so that the peas can cling on either side. With copious watering and keeping the flowers picked off, there should be good picking into the middle of October.

Whether the soil is poor or not, the whole of the ground should have a good heavy dressing of manure and then dug in. Keep the ground smoothly raked between the rows. A sprinkling of artificial manure two or three times during the season will also be of great benefit to them. Yet another way to grow sweet peas is in isolated groups in the mixed border, each group of separate colors, and these to be supported by shrubbery brush, giving the same attenton as to those grown in trenches.

The best sweet peas I have yet seen were grown in the city prison garden of Toronto, Canada. The vines were twelve to fourteen feet high, and the flower stems eighteen inches long or longer.

Ten of the new varieties of 1905 are as follows:

Dorothy Eckford—This is a magnificent pure white variety of the largest size.

Flora Norton—The best blue to date, an exquisite shade.

Florence Fraser—Tall, strong grower, color clear white and clear pink; the flower stems are 12 to 14 inches, stout, and bear three and four flowers at one time; quite early.

Golden Rose—A gem, beautiful form, color deep buff yellow flushed with rosy pink.

Gladys Unwin—A lovely shade of rosy pink, carrying three or four flowers on a stem.

King Edward VII.—The largest, the brightest and the best scarlet.

Mrs. George Higginson, Jr.—A clear, delicate light blue flower, pure in color; a charming and most desirable kind.

Nymphae—Strong growing variety, having four flowers on a stem, opening white and turning pink.

Sunrise—Large, bright pink, suffused with primrose; a gem.

White wonder—A great novelty; the flowers are large, pure white, frequently having six and eight flowers on a stem.

A dozen distinct superb sweet peas:

Blanch Burpee—Pure white.

Blenche Ferry—Pink and white; extra early.

Captivation—Deep magenta.

Countess Cadogan—Violet and sky blue.

Hon. Mrs. Kenyon—The best yellow to date.

Katharine Tracey—Brilliant pink.

Lady Grisel Hamilton—The best of all the lavenders.

Lady Mary Currie—Bright orange pink, shaded rose.

Mrs. Dugdale—Deep rose and primrose.

Navy Blue—Deep violet blue.

Prince of Wales—Intense deep rose or carmine.

Saloplan—Very bright, deep red, nearly scarlet.

Don't sow peas too thickly. If the plants are four inches apart they thrive much better and they are better than when the plants are an inch apart.

Sow each kind in a space by itself—and label each kind for reference.

Get up clubs and buy seeds by the ounce and divide, so as to get more variety.

Don't sow too thickly—put in the wire for support before the plants get five inches high.

When you water them soak thoroughly, and be sure and pick off stale flowers to prevent ripening seed.—John Thorpe in Chicago Tribune.

Vain Hope.

"Banks, can you remember just how much I owe you?"

"Thirteen dollars and twenty-five cents."

"That's the exact sum, eh? Thank you."

"Well—why did you want to know?"

"I thought perhaps you'd forgotten it, that's all."

A Woman Would Ask.

"Here is an ad in dis paper about dat dog yer stole," said the first tough, "an' it says 'reward if returned an' no questions asked.'"

"'No questions asked?'" replied the other tough. "Dat can't be dis dog; I stole dis dog from a woman."—Catholic Standard and Times.

Exchange of Badinage.

"Hello, old man, where did you get the suit?"

"Bought it."

'Oh, you needn't be afraid to tell me your tailor's name. I wouldn't go to him."

"I'm not afraid of that. He doesn't give credit at all

Road Foundations.

Whenever the question of good roads comes up, and that is pretty often in Illinois, where bad roads are the rule in many sections, the arguments for or against usually hinge on the relative cost of the top dressing which distinguishes the stone or gravel road from the earth road. The debaters rarely get below the surface or show practical knowledge of the first steps, from an engineer's point of view, in the making of good roads. In the consideration of the top dressing, the foundation and most essential feature of any road is lost sight of. In many districts, where crushed stone or even gravel are not available, where land values are low, and where the population is scattering, it is not possible to persuade the inhabitants that they can afford the expense of macadam or other costly roads. They are willing to admit the advantages of such highways in enhancing the value of farms, facilitating the marketing of crops and promoting the personal comfort of travelers, but when all has been said, they fall back upon the unanswerable argument that they can no better afford fine roads than fine houses and that their situation does not justify the outlay. If these people understood that the foundation of a good road, which, by the way, is not ruinously expensive, is the main thing, not the top dressing, they could perhaps be started in a rational movement for road improvement that could eventually be carried to perfection. Most of the money and time now expended upon country roads is spent in tinkering with their surfaces, with results so temporary that it is practically wasted. The great enemy of roads is water. The chief factor in their improvement, therefore, is drainage. In districts characterized by light, gravelly or sandy soils, we hear little complaint of roads, because the soil itself affords natural drainage; but in Illinois, where clay subsoils are the rule, under drainage with tile is usually necessary to the securing of a dry, firm, foundation. For this reason the first item to be considered in a good roads agitation should be the amount and cost of the tile needed to properly underdrain the road bed, the expense of laying same and of grading and side ditching. With the foundation properly laid the top dressing of gravel may be postponed if necessary. Underdrained roads without gravel are better than graveled roads without underdrainage and underdrainage is the best possible preparation for a gravel or stone road.—Farmers' Review.

Bringing Up Land.

Recently, in an agricultural paper, I saw an article that intimated that there was much land in the United States, both in what we term the South and in what we call the North, that a man had better let alone; that it would cost more to bring it up to a state of productivity than it would be worth. He expressed the opinion that land that did not naturally grow sod could not be depended on to grow anything.

I have traveled extensively in the South and also in the southern part of the northern states, and I am certain that it is a question of the man rather than the land, provided that he has within reach a market in which he can dispose of his crops at a living price. In this the South is at a disadvantage over many parts of the North. Even where there are railroads the railroad authorities do not feel like putting themselves out to encourage the small grower.

It is true that if the southern lands are farmed as they have been farmed for a century and as some of the northern lands have been farmed for a still longer period of time, they will not offer great possibilities to men taking them. But is it necessary to confine ourselves to the old methods?

I have in mind some of the lands in the South that have been taken in charge by men that had a leaning toward scientific agriculture. Those pieces of land have been made to bear abundantly. The work was done by cultivating in a way to increase the plant food in the soil.

The ways of bringing up land are so many that I will not try to discuss them in this letter. What can you think of land on the side of mountains that is put into corn and the land is being washed at every rain? Is that the way to bring up land? Is it not apparent that such land should be clothed with some kind of a verdure that will prevent the washing and that this is the first thing to do in a case of that kind? Walter Stinson,

Greenup County, Kentucky.

The Dual-Purpose Cow.

I have heard a great deal during the last few years about the dual-purpose cow. First it was the general-purpose cow, but people poked so much fun at that poor animal that she disappeared and a dual-purpose cow took her place. If a man can sell his butter or milk or even his cream I fail to see the good of keeping a dual-purpose cow. Why do I want to be paying tribute to the king of beef when I am not trying to produce beef? I can keep a good cow till she would be too old to make tender beef anyway. Does any man expect that even a dual-purpose cow that has been milked for a dozen years will bring even a fair price for beef? I believe that the fattening up of such a cow would take about all the profit at the present high price for corn. The sooner our farmers get out of the notion of trying to walk two different ways at the same time the sooner will they reach some kind of a destination. I can conceive of a man making a dual-purpose cow profitable. I will suppose him to be on an island in the middle of the Pacific ocean, with only his family to support. He would not want much milk and we would not be able to use much beef, and the dual-purpose cow would be just the thing for him, as his market for both beef and milk would be decidedly limited.

John Stearns.

Dane County, Wisconsin.

The Hoof.

With respect to solidity, the different parts of the hoof vary widely. The middle layer of the wall is harder and more tenacious than the sole, for the latter crumbles away or passes off in larger or smaller flakes on its under surface, while no such spontaneous shortening of the wall occurs. The white line and the frog are soft horn structures, and differ from hard horn in that their horn cells do not, under natural conditions, become hard and hornlike. They are very elastic, absorb moisture rapidly, and as readily dry out and become hard, brittle and easily fissured. Horn of good quality is fine-grained and tough, while bad horn is coarse-grained, and either mellow and friable or hard and brittle. All horn is a poor conductor of heat, and the harder (dryer) the horn, the more slowly does it transmit extremes of temperature.—Prof. John W. Adams.

Hens and Gardens.

It is a common saying that hens and gardens do not go together and that it is of no use to attempt to raise hens and keep a garden at the same time. It is true that in the spring time, when the seeds are just sending up their tender shoots, the hens are not safe creatures to have in the garden. But when the garden vegetables have obtained their growth or a good share of it the fowls may be given the run of the garden. If they touch any of the plants the pruning will often do the plants good, but most of the efforts of the fowls will be devoted to ridding the garden of bugs and worms.