

FARM GARDEN

FASTENING STARTERS.

A Ready and Satisfactory Way of Putting Them Into Sections.

The illustration shows a method of putting starters into sections, which I have found a very good one, says a writer in Country Gentleman.

There are several machines on the market for this work, but some of them are very unsatisfactory. In hot weather



PUTTING STARTERS IN SECTIONS BOXES.

er the starters are apt to tumble down when the bees cluster on them, but with this process heated wax is used and is absorbed by the wood, and the starters stay in place during the hottest days in summer. In order to get the bees to build their combs nice and straight in the sections, the starters must be put in the middle of the sections.

For this purpose we use a board with four blocks nailed on it about two-thirds of an inch thick by 2 1/2 inches square. This size is for the standard section, which holds just one pound of honey. We then pick up four sections at one time and place them over the four blocks, the sections being on their edges, lay in the one inch starters, or full sheets, just as preferred. In the picture full sheets are being used. The blocks being the starters just midway in the sections. We then dip our piece of tin into the heated wax and touch the starter and section at the joining point, holding the starter in place with the left hand, withdrawing the piece of tin instantly, as it only requires a touch, and the work is done. If full sheets are used, we dip twice, touching the top and one side, leaving one side and the bottom loose for expansion.

The size of the piece of tin is 3 1/2 by 5 inches, with a perfectly straight edge. The receptacle to hold the heated wax is a small square tin, by 4 inches, kept about one-third filled with wax and placed over a small hand lamp with a tin cylinder for a globe, with the top snipped in a little and bent out so as to focus a glow, which will give vent to the burning lamp when the pan of wax is placed on top. All these utensils are inexpensive and can be picked up around any home. A little experience will soon indicate the right temperature to keep the wax for expeditious working.

The soy bean, like clover, adds nitrogen to the soil, and it is therefore a renovating instead of an exhausting crop. It is especially suited to take the place of clover in a systematic rotation where the clover has been killed out by severe winters.

All Things Begin With the Soil.

The soil is not a mere thing. It is a scene of life and activity. This is the new and true teaching. Soil which is wholly inactive is unproductive. Movements of air and water, actions of heat and evaporation, life movements of the countless microscopic organisms, decay and disintegration of plants and soil particles—these are some of the activities of the fertile soil. If our ears were delicate enough, we could hear the shuffle of the workers, the beating of hammers and the roll of the tiny machinery. All things begin with the soil, and at last all things come back to it. The soil is the cemetery of all life, and the reconstruction of all life. If the soil is not idle, neither should the farmer be—Bailey.

BUSH SWEET POTATOES.

Interesting Facts About Sweet Potatoes in Growing in New Jersey.

The reputation of New Jersey sweet potatoes is well established, and one of the widely known varieties is the Jersey Yellow. A correspondent of Rural New Yorker tells that there are a number of local strains of this whose peculiarities lie principally in their shape, color and keeping quality. Among these is the Vineland Bush, which seems to be a true Jersey form of the Jersey Yellow. This writer says: We grew some of them last season and found them to be productive, of good yellow color and desirable shape. They form a thick bushy top of rich dark green leaves and not a sign of a runner. The leaves are of the same shape as the Jersey Yellow, but rather larger. They are as easy to cultivate and hoe as bush beans, and there are no vines in the way at digging time. The quality is very much like the Jersey Yellow. We have grown so called Vineland sweet, but they are all more or less of the true family. The Vineland Bush is a true sweet potato.

Soil, method of culture and season have much to do with shape, color and

quality of sweet potatoes. It is a well known fact that where they have been grown in favorable soil for many years their habit of growth becomes to some extent fixed in the seed, and they will retain that habit for a year or more when planted on quite different soil.

A large sweet potato grower in Iowa writes me: "We buy Jersey Yellow seed, which at first grows short and chunky, but after a year or two they grow longer, and then we call them Yellow Nauseumons." Thus they change name as well as shape.

The seed—the small or medium potatoes—are first bedded in a hotbed one-half to one inch apart and covered three inches deep. In about four weeks the sprouts should be well up and rooted, when they are pulled and set where the soil has been previously prepared.



BUSH SWEET POTATO.

The ground is first plowed lightly, as deep plowing tends to produce long potatoes. Some growers plant in hills, others on ridges. Usually light furrows are run about three feet apart, in which the fertilizer, which should be rich in potash, is sown at the rate of one half ton per acre. Hills or ridges are made directly over this either with a ridger or small plow. The plants are set on the ridge 18 inches or more apart. There are several forms of hand starters in use as well as the two horse machine, but many farmers still set with the hand or trowel. Plants should never be set until the weather is warm, about mid-June planting time. If the soil is dry, a little water is put in as the plant is set, which insures a good start. Some plants always water. Frequent cultivation and clean hoeing are essential to success. Nearly all growers now use cultivators with vine turners on, which keep the vines upon the ridge through the season.

The Bar or Globe Artichoke.

The bar or globe artichoke, cultivated extensively in Mediterranean countries, is a vegetable of very delicate flavor for the table and quite different from the Jerusalem artichoke, which is grown as forage for hogs and other animals.

The bar artichoke is commonly propagated from suckers, which are produced around the crown. These are pinched off or cut off except two or three, which are left to produce the flower heads. Black, turfy soils are especially suitable for its cultivation. The suckers are planted 2 1/2 feet apart in rows three to four feet apart, the care required and the methods of cultivation being similar to those used in the case of cabbage, eggplant, etc. Suckers planted in this way will yield heads in autumn of the first year. At the north when bar artichokes are grown from seed the seed is sown in hotbeds in February or March in rows about three inches apart, and the plants are finally thinned to about the same distance apart in the row. These are ready to transplant when they have four leaves. They should be set out three or four together in a hill, the hills 18 to 30 inches apart in rows three to four feet apart.

A Cross of Game and Cochin.

We have tried crossing the White Indian Game on the White Cochin, and the results have been most excellent. The feathering on the legs characteristic of the Cochin is greatly diminished. In some almost absent; the leg is increased in length, the feathers on the body lie close, the carriage is upright, and the docility of the Cochin is entirely lost. The head is more slender than in the full blood Cochin, yet thicker and shorter than that of the Game. For the table the cross is unsurpassed. The meat is fine in texture, of a gamey flavor and not dry, as is the flesh of many fowls, breast full and plump and legs and thighs large. The chicks are extremely hardy, scarcely one being lost after hatching. They require but little attention, are good rangers and on the farm would forage for their own living under ordinary circumstances. When in full feather, however, a very high fence would be required to confine them.—E. P. Niles, Virginia.

GOOD ROADS OF FLORIDA.

Maurice O. Eldridge, acting director of the office of road inquiry of the agricultural department, who recently made an examination of the roads of Florida, makes a very favorable report of their condition. He says: In spite of the great freeze of 1880, which almost paralyzed the orange industry in Florida, the people of that state have built under these trying conditions hundreds of miles of good roads. These highways are as durable and perfect as the stone and gravel roads of some of the northern states, and on account of the luxuriant tropical growth which borders them on every hand they are as beautiful as any highways I have ever seen, not excepting the masterpieces of the road builder's art which traverse the coast of the Mediterranean. The most remarkable thing about these roads is the cost, which is only about one-sixth as much as the stone and gravel roads of the northern states.

Roads 15 feet wide are being constructed in Orange county in the vicinity of Orlando and Winter Park for \$500 per mile, and where convict labor can be had, which fortunately is very scarce in Florida, good roads have been built for \$250 per mile. This remarkably low cost is due to the fact that these roads were built by simply mixing the sand, of which the original roads were composed, with clay, which has been discovered at various points in the state. A large deposit of this clay was discovered near Hovton, and many of the streets and roads in Orange county have been built by mixing Bartow clay with sand, which when placed upon the prepared sand foundation and rolled, so consolidates and cements together as to form a compact and smooth surface. After these roads are once built they are not worn out to pieces like the high ways of the north, due to the fact that no deep ruts occur to disrupt their surfaces and foundations to winter and that the water flows rapidly to the sides of the road during continued rains and sinks into the sandy soil alongside. Another reason why these roads do not wear rapidly is that many of the vehicles in Florida, even the buggies and light spring wagons, have been provided with wide tires and have thus become roadmakers. As a result of wide tires and good drainage some of the streets of Orlando, Fla., which were built over ten years ago of sand and clay, are as good, if not better, today than they were when they were

Dairy Shorthorns

MILK RECORD OF CERTAIN STRAINS AND FAMILIES OF THE FAMOUS BREED.

The business of animal industry of the agricultural department includes Shorthorns among the dairy breeds and the cattle which have been most famous as a breed in England and America, which have received the longest and closest attention of breeders and improvers, which have commanded prices, singly and in herds, far above all others and which have made the most general impression upon the live stock of the continent during the nineteenth century are the Shorthorns or Durhams. Wallace says they are descended from the old northeast of England bred variously designated as "Durham," "Teeswater," "Yorkshire" and "Halders" and adds: "The breed was probably originally formed, though perhaps several centuries ago, by crossing the aboriginal British cows with large frame bulls imported from the continent. Early Shorthorns were good milkers, and it may be presumed they in part inherited that quality along with the shortness of horn from their continental ancestors. Little



SHORTHORN MILKER.

is known of the breed except from the uncertain authority of tradition and the records of the eighteenth century, though it is only right to infer that long before this time great care and even skill had been bestowed upon it. The earliest records show that purity of breed was fully appreciated, and this important fact could not have been universal without previous experience and attention."

The aim of nearly all the improvers of Shorthorns has been to secure early maturity, size, form and best producing qualities. "All is useless that is not beef" was the motto of an eminent breeder, and he has had many followers. Thomas Bates is the most noted of the few who have seemed anxious to retain good milking capacity, and many breeders in the United States persistently follow his example. There have always been good dairy cows among them, and in England strains and families of them have been kept somewhat distinct and known as "milk-ing Shorthorns."

When first brought to America, Shorthorns earned the name of "the milk breed." Among old records are those of cows giving six, eight and even nine gallons of milk a day on grass alone. Although now latent in most lines, there seems to be a dairy quality inherent in the breed which some careful managers are able successfully to develop and propagate. Records of several dairy herds in the United States within a quarter century show a milking season of about 275 days and an average product of 6,500 pounds of milk. One herd of ten cows from 3 to 12 years old gave 7,750 pounds each in a year. Single cows have averaged much more, several instances being known of 10,000 to 12,000 pounds in a season. The Shorthorn milk is of good quality, rather above the average. The fat globules are of medium and fairly uniform size, so that cream separates easily. It is rather pale in color. In 1824 a cow near Philadelphia made over 20 pounds of butter in a week without special feeding. Herds of 40 cows have averaged 200 pounds each in a year. The herd of ten cows mentioned above averaged 325 pounds, and single cows have records of 400 pounds and over, one being of 513 pounds.

The Day of Panels.

We suppose there will always be some worthless fads or fancies in the world of live stock breeding, says The National Stockman. There are many in the past, and every now and then a new one hops up. But we are glad to say that experience has not been without its lessons. Breeders are not taking things for granted these days. Every statement is checked closely. The man with a fad no longer finds an audience that swallows all his statements without the proverbial grain of salt. The facts of the future must have some foundation in utility, or at least an appearance of it, or they will not live long enough to do much damage. It is very gratifying to practical men to see some of their number whacking away at this fancy footlingness whenever it appears. It is not hard to hit too hard nor too often.

Dairying in Oregon.

There is no lack of interest in the subject of developing the dairy industry in Oregon at the present time. There is talk of establishing creameries at almost every town in Oregon which is not already provided with one, says the Oregon Agriculturist. The final success of the creameries which will be established will hinge much upon the thoroughness with which a campaign of educational work on dairy lines is carried on. Careful and intelligent study of the problems connected with dairying is an absolute essential to permanent success.

Up and Down.

It takes years of perseverance and experience to build up a good dairy, but only a few weeks of mismanagement to tear it down.

BEFORE AND AFTER.

Farmers Changed Their Minds About the Value of Good Roads.

Speaking of the results obtained by the J. A. W. in its funds for good roads, the New York Tribune says: "When the pioneer macadamized road was built from Irvington to Spring Hill, N. J., there was a storm of protest against it from ultra-conservative farmers, who objected not only to the cost they expected it would impose upon them, but to the uselessness of the road. Perhaps it would do for light driving, they said, but it would never do for heavy teaming. It would be ruinous to their horses' feet. If it were built, no self-respecting farmer would ever think of using it."

"Well, it was built, and in a short time thereafter the average farmer with a heavy load to cart would go a considerable distance out of his way for the sake of getting upon it. Doubtless precisely the same thing has occurred in the case of many other improved roads in other parts of the country. Of course such change of opinion is to be commended as a sane recognition of the benefits of improved roads."

others can do the same. In the Richmond District Station and Parquette county, farmers institute at Vandellia, Ill., J. A. Spies of St. Jacobs said that he had made a success in dairying by using the best possible condition. He utilizes all his cows, crop, either as green feed direct from the field or through the silo. He recommended those who are about to begin dairying to visit some successful dairymen before investing either in cows or appliances.

Economy is the dairy means liberality of purpose. To economize on the grade of salt you use in your butter or the character of feed you give your cows is the rankest prodigality.

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