

PLANTING ONION SETS IN DRILLS

May Be Set Out as Early in Spring as the Land Can Be Prepared.

GIVE SHALLOW CULTIVATION

When Tops Begin to Die and Bulbs Are Full Grown Onions Should Be Pulled—Leeks Thrive on Any Good Soil.

(Prepared by the United States Department of Agriculture.)

For very early bunch onions it is the common practice to plant sets in drills 12 to 14 inches apart and 2 to 3 inches apart in the row. The sets may be put out as early in the spring as the land can be prepared.

For dry onions, sow the seed thickly in drills about 12 to 14 inches apart in the spring, as soon as danger from hard frosts is over. For early bulbs the seed may be planted in a hotbed or coldframe and the young plants transplanted to the open when conditions are favorable. Plants 4 or 5 inches high are of good size for transplanting.

Onions require frequent, shallow cultivation, and it may be necessary to resort to hand weeding. When the tops begin to die and the bulbs are full grown, the onions should be pulled and left in the field for a few days to dry. Then the tops should be clipped off and the bulbs placed in crates or bags and stored in a well-ventilated place to cure.

Early Green Onions.

Early green onions may also be produced from the multiplier or potato varieties planted in the autumn. The large bulbs of these onions contain a number of "hearts," or buds, and if planted will produce a number of small onions. The small onions have but one "heart" and will produce large bulbs. A few large bulbs should be planted each year, to produce sets for fall planting.

The top, or tree, onion produces a number of bulbets on top of the stem. These small bulbs can be planted in the autumn and will produce onions the following spring.

Varieties recommended: Southport White Globe, Southport Red Globe, Danvers, Red Wethersfield, Australian



Onions Are Easily Grown on Good Soil and Require Little Attention Besides Weeding.

Brown and Prize Taker. In some sections of the South the Creole is grown and the Louisiana, or Red Creole, is a popular variety. The Bermuda is a good type of mild-flavored onion and is desired by many. The important varieties of the Bermuda onion are Crystal Wax, White Bermuda and Red Bermuda.

Leek.

This plant belongs to the same class as does the onion, but requires somewhat different treatment. Leeks can be grown on any good garden soil and are usually sown in a shallow trench. The plants should be thinned to stand about 4 inches apart in the row and the cultivation should be similar to that for onions. After the plants have attained almost full size, the earth is drawn around them to the height of 6 or 8 inches in order to blanch the fleshy stem. The leek does not form a true bulb like the onion, but the stem is uniformly thick throughout. Leeks are marketed in bundles, like young onions and they may be stored the same as celery for winter.

Leeks are used for flavoring purposes and are boiled and served with a cream dressing, the same as young onions.

Garlic is closely allied to the onion, but will remain in the ground from one year to another if undisturbed. Garlic is planted by setting the small bulbs, or cloves, either in the autumn or early spring. The culture is practically the same as for the onion. The bulbs are used for flavoring purposes.

CLEAN UP ALL WASTE AREAS

Before Alfalfa Seed Crop Is Grown All Plants Along Fence Lines Should Be Cut.

Every farmer in an alfalfa seed-growing district should cut all of the standing alfalfa along fence lines, ditch banks, and other waste areas at the time of cutting a hay crop and before a seed crop is grown.

INSURE LARGE CROP OF EARLY TOMATOES

Select Seed of a Quick Maturing Variety.

Young Plants Should Be Transplanted When They Reach Height of 1 1/2 to 2 Inches—Best to Prune and Train to Stakes.

(Prepared by the United States Department of Agriculture.)

To insure an early crop of tomatoes the seed of a quick-maturing sort should be started eight weeks before the time for setting the plants in the field. When only a few plants are needed, the seed may be sown in a shallow box in the house. For the best results in growing tomatoes the young plants should be transplanted as soon as they reach a height of 1 1/2 to 2 inches. Transplant these plants to stand 2 inches apart each way in



Tomato Vines Tied to Stakes Produce Clean and Healthy Fruit.

a hotbed, coldframe, or box in the house. When the plants begin to crowd, it is a good plan to transplant them to flower pots, plant bands, old strawberry boxes, or tin cans from which the bottoms and tops have been melted.

Tomato plants should be set in the open as soon as danger of frost has passed. If the plants are to be pruned to one or two stems and tied to stakes they should be set 18 inches apart in rows 3 feet apart. If the plants are not pruned or staked they may be planted 3 feet apart in rows 4 feet apart. It is advisable, however, to prune and train to stakes, especially for the early crop, as plants so treated will be healthier and more easily cultivated and will produce fruit which is earlier and more uniform in size and shape than that produced by plants which have not been trained and pruned. Soon after setting the plants in the field a stake should be driven near each plant, to which it may be tied. Care should be exercised to tie the plant so that it will not be injured by the string. A good plan is to loop the string around the stake and tie it under a leaf stem. Go over the patch once every week or 10 days and remove all shoots starting in the axils of the leaves.

Varieties recommended: For early tomatoes, Earliana or Chalk's Early Jewel are recommended, preferably the former. For medium and late varieties the following are suggested: Greater Baltimore, Red Rock, Globe, Beauty, Acme, and Stone. The Stone is usually preferred for canning.



Give the garden a fair start.

If soil is "sour" lime it for clover.

There is always a demand for early sweet corn.

A farm without records is like a ship without a rudder.

Weeds probably cause more trouble than any other pest that bothers pastures.

Most of the weeds that infest the pastures are the annual and perennial ragweeds.

In applying manure to the soil it is important to get an even distribution over the field.

Practically no clover seed is absolutely pure and one is taking a long chance in buying any but the best seed obtainable.

Hay crops should be cut carefully so that no stems will remain standing to develop in advance of the regular seed crop.

Keeping a machine or vehicle in good repair and well oiled not only increases its efficiency, but lessens the power required in using it.

Sweet clover makes first-class pasture, especially during the fall of the first year it is seeded, and the early summer of the year following.

Attempts to grow second crops of alfalfa seed in a single season will meet almost certain failure because of the increased abundance of chalcids flies late in the summer.

FARM STOCK

CLUB WORK PAYS BOYS WELL

Many California Members Repaid Loans for Purebred Animals Out of First Litters.

Agricultural club boys in Eldorado county, Calif., borrowed \$502 in March, 1918, from local banks to start their pig club projects. In August, 1919, an inventory showed that these boys owned or had sold \$5,828.25 worth of swine. Eight gilts, exhibited by the Eldorado boys at the State fair brought an average price of \$56.50. They were from the first litter out of the original sows.

Owing to the high prices of pork last year, 63 per cent of the 1919 enrollment in the California agricultural clubs went into either the sow and litter or the pig feeding contests. Many club members in the State paid high prices with borrowed money for purebred animals, and in most cases have more than repaid the loans out of the first litters, says the United States department of agriculture.

Occasionally the purebred pig clubs in California have found difficulty in securing adequate prices for the stock they raise. To eliminate this trouble they have resorted to the means used by other purebred breeders, and have organized auction sales. Two were held in the past year, one at Lemoore, Kings county, and one in Fresno county. At Lemoore 38 animals brought a total of \$2,751, or an average of about \$72 a head, which is about the



Pigs Distributed to Club Members.

market price for purebred animals in California. In Fresno county 29 head of purebred Poland-Chinas brought a total of \$981.50, or an average price of \$88.30.

TREATING PIGS FOR WORMS

Sanitary Cement Wallow Should Be Provided and Oil or Dip Added to Kill Vermin.

Before starting spring pigs on summer feed, the entire lot should be treated for worms unless the owner is certain that the premises are clear. Santonin or American wormseed oil treatments are good.

Hogs should have a sanitary cement or frame wallow. Into the water should be put some crude oil or a dip to destroy lice, keep the skin in good condition, and promote gains.

A maximum use of pasture is desirable. If present pastures are poor or insufficient they may be supplemented with rape. A good rape pasture should carry 20 pigs to the acre for the season, according to R. O. Ashby of the Minnesota station.

Wherever pigs are given a full feed of grain the self-feeder should be used to save labor. Corn should be supplemented with a feed rich in protein.

The hogs should hog-off enough corn to finish them for the market, unless they are to be put behind cattle.

SHEEP AS SOURCE OF PROFIT

Close-Grazing Animals Will Thrive on Short Grass and Rough Land—Worthy of Trial.

Sheep would be a source of profit on many farms where they have not been given attention. They are close-grazing animals and as such will thrive on short grass and rough land where other animals would find it difficult to live. Why not get a few sheep and give them a chance on your farm?

EARLY PIGS REQUIRE GRAIN

Young Animals Cannot Be Expected to Get Heavy Enough for Market From Cornfield.

Pigs farrowed in late April, May and June can be fed on the same general plan but cannot be expected to get heavy enough to be marketed to the best advantage from the cornfield, but will require grain feeding up to late December or January at least before they will be heavy enough.

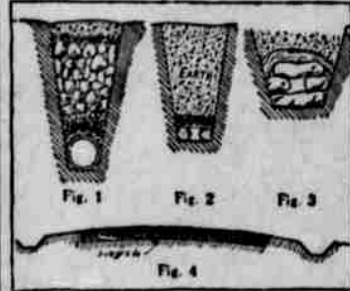
GOOD ROADS

ESSENTIALS OF GOOD ROADS

Rules Outlined for Construction of Stone Thoroughfares—Drainage Is Important.

The essential requirements of good stone road construction may be condensed into the following rules:

1. Cut the high places down to a grade not exceeding 1 to 20; fill up flats or low places so as to have a minimum grade of 1 to 200.
2. Construct subdrains to carry away all seepage water; also make enough cross-drains to dispose of surface-water. Fig. 1 shows a subdrain of drain-tile covered with stone. Fig. 2 shows a subdrain made of logs, and Fig. 3 shows one made of field stone.
3. Make the subgrade firm and solid and give it the same curvature as the surface of the finished road.
4. Spread the bottom course of stone evenly, then roll and add a little



Subdrains and Cross Section of Road.

fine material for a binder, and continue the rolling until the stones cease to slink and creep in front of the roller.

5. Spread the second course and roll it with the addition of binder and water until the whole surface is hard and smooth, carefully filling with stone any depressions that may appear; then finish the whole with a course of three-quarter-inch stone and screenings. This must be soaked with water and rolled until the surface is hard and unyielding. Always be careful to commence the rolling at the sides and gradually work toward the center; by so doing the crown of the road will be preserved. If this work is well and thoroughly done the result will be a road that is smooth, hard and convenient for travel at all seasons of the year. Fig. 4 shows a cross-section of a macadam road, with layers of stone compacted in place.

For a farming community the width of macadam need not be greater than 10 or 12 feet. The width of stone surface should be sufficient to take care of all the travel on the road; but on the other hand it should not be so great as to require unnecessary expense in the construction or maintenance of the road.

When water has to be conveyed from one side of a road to the other it should be taken under the road by means of a culvert. A stone culvert is, of course, the best, but a vitrified tile pipe or a corrugated metal culvert may be used.

Lastly, give the road a good coat of suitable road oil to prevent dust and retard much damage to automobiles.

PROBLEM OF GOOD HIGHWAYS

Becoming One of Increasing Importance Because of Changes in Methods of Travel.

The road problem of the country is becoming one of ever-increasing importance, largely because of the changes in methods of travel which enable the city man to reach farther and farther into the country district. He does this first from a business or economic standpoint, and second, from a pleasure-seeking standpoint. In an exactly similar manner, the farmer is getting fully aroused to the importance of better and better roads. They enable him to get to the city markets with his produce, whether that produce may be something requiring frequent trips, such as milk to a creamery, garden truck to market, or staple products to be hauled in their proper season. The better the roads, the cheaper he can haul his produce and the quicker he can do so, resulting in a saving of time, and the better choice he has of market conditions.

ESSENTIAL POINTS OF ROADS

Concrete Highways Reduce Pull, Increase the Load and Shorten Time of Delivery.

Concrete roads reduce the pull, increase the load and shorten the time—three essential points in modern road construction. With the quality of permanence added, the price paid becomes an investment instead of a loss.

BEST FOR MARKETING CROPS

Farmers Enabled to Haul Produce When Prices Are Highest If Highways Are Improved.

Good roads give a wider choice of time for marketing crops. If roads were kept in condition to permit travel and hauling at all times and in all kinds of weather, farmers would not have to rush their produce to market in seasons of good roads, but could haul it when prices were highest and when their crops did not demand attention.

The DAIRY



INSPECTION AIDS EXPORTER

Federal Certificates of Importance as They Guarantee Shipments Meet Requirements.

An illustration of the important service which inspectors of perishable food, representing the bureau of markets, United States department of agriculture, are able to render exporters, is found in the work recently done in connection with the shipment abroad of 4,000,000 pounds of butter. This butter was destined for one of the European countries, but because previous uninspected shipments had not come up to specifications, the exporting house, to protect itself against further complaints, requested United States government inspection. This insured delivery of butter of the quality called for in its contracts. The bureau of markets' inspectors were called on to certify the grade of the butter which was held in Minneapolis, Chicago, Boston, Philadelphia and New York warehouses. These are the points at which butter inspectors are regularly stationed.

The inspections were made as requested, and such lots as did not come up to the stipulated score were withheld, while the rest was started on its way. From this incident it appears that federal inspection certificates are proving of value to exporters, since they guarantee that the shipments concerned fully meet specific requirements—an important factor in promoting foreign trade rela-



tions. Likewise, the industry as a whole benefits from federal inspection because through it the produce obtains favorable standing in foreign markets.

COWS REPAY GENEROUS FEED

Animals Take Raw Materials and Work Them Over Into Milk—Dispose of Shirkers.

The cow must be regarded as a sort of living machine. She takes the raw materials given her in the form of feed and works them over into milk. If the supply of proper materials is small, the output will be small. The cow that will not repay generous feeding should be disposed of and one bought that will. There are, of course, certain inbred characteristics or natural qualities which even liberal feeding cannot overcome.

BALANCED RATION FOR COWS

New York Farmers Feed Oats, Gluten, Bran and Cottonseed Meal in Combination.

A balanced ration for dairy cows, used largely by New York farmers who feed silage, hay and some corn fodder for roughage, consists of 200 pounds ground oats, 200 pounds gluten, 100 pounds bran and 100 pounds cottonseed meal. Considering nutritive value it is about the cheapest ration a farmer can buy.

TAKING CREAM TO CREAMERY

Should Be Done Early in Morning and Not Less Than Three Times a Week in Summer.

Deliver the cream to the creamery or cream station early in the morning, and not less than three times a week during the summer, and twice a week during the winter. Protect the cans of cream from the sun by covering with canvas or with a wet sack while en route.

WHAT MAKES THE GOOD TURN.

A scout leader gave a very good description of a good turn when he said it was "To do something for someone that causes you to go out of your way or diverts you from your regular course of action."

Remember, to do your duty or to aid without inconvenience to yourself is not a real good turn. Putting the good turn above one's self is the real thing that counts in scouting.

BEST CROPS FOR SPRING GREENS

Spinach Is Most Excellent and Should Be Found in Every Home Garden.

RICH LOAM MOST ESSENTIAL

One of Good Points About Swiss Chard Is That Leaves May Be Cut Without Injuring Plant—Dandelion and Kale Are Good.

(Prepared by the United States Department of Agriculture.)

Spinach is one of the best crops grown for greens and should be found in every home garden. In the North it may be planted in early spring, or it can be planted in the autumn and carried over winter by mulching with straw or leaves. Sow the seeds of spinach in drills 1 foot apart at the rate of 1 ounce to 100 feet of row or 10 to 12 pounds to the acre. To produce good spinach, a rich loam which will give the plants a quick growth is required. As ordinarily grown, spinach occupies the land during the autumn and winter only and does not interfere with summer cultivation.

Spinach is an easily grown garden crop, and there is, perhaps, no other of its kind that will give as good satisfaction. Three or four ounces of seed planted in the autumn after a summer crop has been harvested from the land, will produce an abundance of greens for the average family during the late autumn and early spring. In gathering spinach, the entire plant is removed and not the leaves. The larger plants are selected first, and the smaller or later ones are thus given room to develop. No thinning is required if this plan of harvesting is practiced.

The Savoy is the variety most commonly grown.

Chard.

Chard, or Swiss chard, is a beet which is grown for its foliage instead of its root. The leaves are cooked and used in very much the same way as asparagus. One of the good points about this vegetable is that crop after crop of leaves may be cut without injuring the plant.

Chard is planted about the same time and in the same manner as beets, but as the top grows larger it should be given more space than the garden beet. The edible part of this plant is the root, which somewhat resembles the carrot and is used in the same manner. The leaves are used the same as parsley for garnishing and in flavoring soups.

New Zealand Spinach.

The plant known as New Zealand spinach is not a true spinach but grows much larger and should be planted in rows 3 feet apart, with the plants 12 to 18 inches apart in the row. Some difficulty may be experienced in getting the seeds to germinate, and they should be soaked one or two hours in hot water before planting.



Swiss Chard Has Been Bred for Feeding for Salads Instead of Root.

ing. New Zealand spinach is satisfactory for growing in warm climates, as it withstands heat better than the ordinary spinach. The fleshy leaves and tender stems are cooked the same as spinach.

Dandelion.

Sow the seed of dandelion in spring in drills 18 inches apart, covering it one-half inch deep. Thin the plants to about 12 inches apart and give good clean cultivation throughout the summer. In the colder parts of the country it may be desirable to mulch slightly during the winter, to prevent the plants heaving out of the soil. Early the following spring the plants will be ready for use as greens, but they are greatly improved if blanched by setting two boards in the form of an inverted V over the row. The blanching not only makes the leaves tender but destroys a part of the bitter taste. Dandelion greens should be boiled in two waters to remove the bitterness.

There are a large number of forms of kale, and these are thought by some to be the original type of the cabbage. Kale does not form a head, and has convoluted leaves and thick stems. It may be set in rows and cultivated the same as cabbage or may be sown broadcast, but may be set somewhat closer. This crop is very hardy and will live through the winter in the open ground in localities where freezing is not too severe. The flavor of kale is improved by frost.

Kale is used for greens during the winter and as a substitute for cabbage.