THE SWEET POTATO PLANT is tender and requires a long growing season for profitable growth. It should be grown in a region having at least four months of warm weather and sunshine. The sweet potato is one of the most drought resistant vegetables. It will produce a fair crop without irrigation in semi-arid regions, where most vegetable crops will not thrive at all. However, a moderate amount of irrigation water is desirable during the growing season. Most of the water should be applied between the time the plants are set and the time when the vines practically cover the ground. If the potatoes are kept well irrigated and the surface soil moist the tubers will be nearer the surface of the ground than if the surface soil is allowed to dry out too much.

The sweet potato can be grown on a wide range of soils. A well-drained, sandy, loam soil with a clay sub-soil is considered ideal for sweet potatoes. On very rich soils the crop produces too much vine growth and the potatoes are likely to be large and rough. On heavy clay soils the tubers are also likely to be rough and irregular in shape. It is best, therefore, to select a light, moderately rich soil. Good drainage is important in growing sweet potatoes since the crop does not do well when water stands around the plants.

If the soil lacks fertility it is advisable to use commercial fertilizers. Fresh manure causes a rank growth of vines and the development of large, rough roots. Nevertheless, it can be used if applied to the crop preceding the sweet potatoes. In most cases it is best to apply manure to other crops and depend on commercial fertilizers to furnish the elements that are needed for the sweet potato crop.

Sweet potatoes are grown from slips produced from roots or from vine cuttings. Six to eight bushels of seed roots are required to produce enough plants from the first pulling to set an acre. The amount of seed required depends upon the size of the roots and the distance between the plants in the field. Large roots produce fewer plants from a bushel of seed than small or medium sized roots. One bushel of good seed should produce from 2500 to 3000 plants. Twenty to twenty-four square feet of bed space is necessary for a bushel of seed.

Before bedding the seed roots should be treated for scurf for from five to ten minutes in a solution made by dissolving one ounce of corrosive sublimate in eight gallons of water. After being disinfected the potatoes should be rinsed in clear water and placed in the sun to dry. This solution will destroy any spores that may be on the surface of the potato, but will not kill the fungus within the potato. The solution loses its effectiveness after repeated use so should not be used more than two or three times.

Beds are made in a protected location such as on the south side of a house. The beds are made six feet wide and long enough for the quantity of potatoes to be bedded. The potatoes are placed in the bed close together, but not touching each other. They are covered with about three inches of soil. The bed is watered thoroughly by sprinkling with a watering can or hose. The surface of the soil can be protected from drying out by straw until the plants start to come up. The straw should then be removed.

Several methods used to heat hot beds include the use of manure, steam, hot water, and hot air. The temperature of the soil in the hot bed should be 80 to 85 degrees F. at the time the seed is bedded, and should fall gradually until it reaches 70 to 75 degrees F. A high temperature will cause a rapid soft growth and low temperature delays sprouting. At the proper temperature six weeks is sufficient time to grow plants large enough for setting out.

The sweet potato is tender and will not stand a frost, therefore, planting should be delayed until danger of frost is past. Good yields will require four months of growing season after the plants are set out. If the plants are set out in the field by hand it is desirable to do this when the soil is wet. The spacing of the plants varies according to the variety and richness of the soil. For varieties producing from medium to long growing vines the rows are spaced from four to six feet apart and the plants are set from 12 to 18 inches apart in the row. Varieties producing short vines are planted in rows three to four feet apart.

The plants should be cultivated often enough to keep the weeds under control and to prevent a hard crust from forming on the soil. The soil is worked toward the row to widen the ridge. Cultivation should continue until the vines meet in the middle, but after this no attention is needed except to pull the large weeds by hand.

The sweet potatoes grown for the
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QUESTIONS AND ANSWERS

Question: Will you please give me a good fattening ration to be used for crate feeding broilers.

—Mrs. J. F. T.

Answer: In our experimental work at this station we find that a mixture composed of 2 parts corn meal, 2 parts ground barley, 2 parts cottonseed meal, 7½ semi-solid buttermilk has given very satisfactory results. The gains averaged from 25 to 33% over a 10- to 12-day feeding period. Liquid buttermilk or skim milk can be substituted for the semi-solid buttermilk. This material should be made in the form of a batter at a consistency which will permit it being poured from the container. The birds should be starved for twelve hours before the first feeding. They should be fed lightly at first and the amount increased until they are on full feed about the third day. It is suggested that the feeding period not continue longer than twelve days.


Question: What is the advisability of planting a part of my property, on the Yuma Mesa, to Valencia oranges?

—E. V. B.

In answer to your letter relative to the advisability of planting a part of your property on the Yuma Mesa to Valencia oranges. From the temperature standpoint, I believe the Yuma Mesa is well suited for the growing of Valencias. They will bear more heavily than Navelst, although from a market standpoint they will meet more competition than the Naval. I believe, however, that through their heavier production and with the present tendency of the Navels on the Mesa to produce very light crops that the lower price which may be received from the Valencias will be more than offset by their heavier production.

I believe we could use to advantage an early seedless variety of the Valencia type and quality which will produce a heavy crop of fruit at a season as early or earlier than the Navel. We have one or two varieties under trial at our station which may meet these specifications. I refer particularly to the Hamblin seedless. We have no trees in production as yet, so are unable to determine their behavior.

—A. F. Kinnison, Horticulturist.

SWEET POTATOES IN ARIZONA

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early market may be harvested as soon as they reach marketable size regardless of the stage of maturity. If the potatoes are to be stored they should be mature before digging. However, if an early frost occurs, the vines should be removed or the potatoes harvested regardless of the stage of maturity.

ANGORA GOAT BREEDING UNIT IS ESTABLISHED

(Continued from Page 4)

the automobile industry has become one of the largest consumers of mohair and has created a marked stimulus in mohair production. The almost complete dependence upon mohair as the sole source of income has led Angora goat breeders to devote particular attention to the production of a heavier and better product. Improvement comes slowly and only after careful systematic management. The complexity of constructive breeding practices makes it highly impracticable for the commercial producer to effect an established improvement.

A predominance of kempy, objectionable, low quality mohair is produced. Goatmen are generally undecided as to the type of mohair the mills require. Only slight differentiation has been made in the market price for varying degrees of quality. A wide divergence of opinion exists among breeders of the ideal type of standard to breed to. The future welfare of the industry is greatly dependent upon the production of an improved standardized product. This work is proposed to aid in furthering the improvement of mohair in general and especially to ascertain the essential qualities necessary in the production of a more desirable product and to fix them in a goat adaptable to Arizona conditions.