

# ONION CULTURE

By M. F. WHARTON, Horticulturist, University of Arizona

## Getting the Onions Started in the Field. Methods Used in Irrigating Onion Transplants—Disease and Insect Control.

**I**N an early issue, special attention was given to the care of the onion seed bed. Cultural practices were advised to the stage where the young plants were ready to be transplanted to the field.

### Soils

Onions will do well on any type of soil from the lighter loam types to the heavy clays. Clay soils are not advisable unless they contain a large amount of organic matter as they will puddle and bake. The ideal soil is a sandy loam fairly high in organic matter. Any soil should first have had a cover crop or a liberal dressing of barnyard manure to give the best results for growing onions.

The field should be deeply irrigated and plowed prior to transplanting. The surface should be worked down to a garden consistency with a disc harrow or by using a drag and following with a spike harrow. Ridges are next constructed with the aid of a lister or furrowing out plow. These ridges should be six to eight inches in height and from 20 to 24 inches or more from center to center, according to the method of cultivation employed.

The transplants are now dug from the seed bed, sorted; the roots cut back to an inch in length and the tops to from four to six inches. A good plan is to grasp a handful of the young plants so that the bottom of the bulbs are flush with the heel of the hand, cut the roots to about an inch, extend the thumb and cut the tops at this point. This method is fast and will give the proper length to the plants.

### Dipping

Before setting the young plants in the field they should be dipped in a solution of Black Leaf "40" and soap-suds. This will kill all thrips and aphids present. Directions for mixing will be found on the Black Leaf "40" can.

In transplanting to the field it is economical to have a boy or man drop ahead of the man doing the setting. Using a trowel or dibble the setter follows along setting the young plants to a depth of from two to three inches or the shoulder of the ridge. Distance

apart of the plants in the row varies with the fertility of the soil. On very rich soil four to five inches is sufficient while a soil low in fertility would require from six to nine inches. Wider distances will give bulbs too large for the average market.

As soon as the young plants are set they should be irrigated and again in from three to five days. The soil should be kept moist until the plants have taken hold and are growing well.

Irrigation water should be applied at regular intervals throughout the growing season to keep the plants always in a steady growing condition. Fluctuating water supply that allows the soil to become too dry between irrigations will produce mishapen and low quality onions. Thick necks and scallions are easily produced by irregular irrigation as well as premature seed stalks. Care also must be taken not to allow flooding over the ridges as this will cause the soil to bake and the onions will be forced into all manner of shapes by this tightly baked soil.

Regular irrigation should continue until the bulbs attain the size desired. Water should then be withdrawn and the onions allowed to mature until the tops die down.

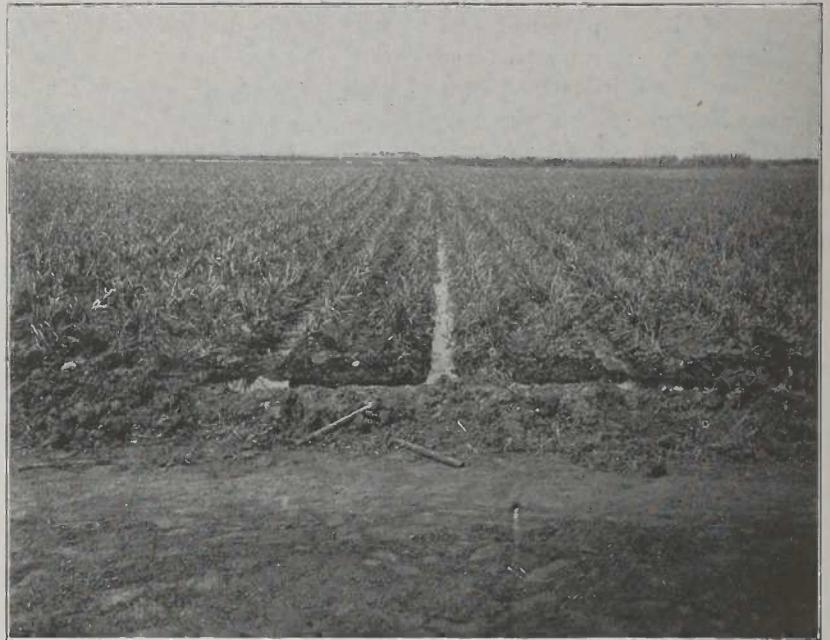
Cultivation should be frequent and shallow to keep down weeds and to keep the surface soil loose about the plants. Deep cultivations are not advisable as the onion is a shallow rooted plant.

It is a debated question, at present, whether to stop cultivation with the last irrigation or to continue until the crop is harvested. Both methods have been observed and little difference has been noted. However, if weeds are allowed to grow and go to seed it constitutes a particular menace to future crops on this soil.

The onions are allowed to mature thoroughly in the soil. It is best to allow them to remain in the field until the tops break over and start to wither and the outer scales of the bulb become dry before harvesting. In harvesting it is advised to carefully pull and carry the onions immediately to the curing shed. Handle carefully as every bruise is just another place for rot diseases to enter. Immediate removal from the field is advised as severe sun burning will take place if the onion are left exposed to the sun, even for a very few hours.

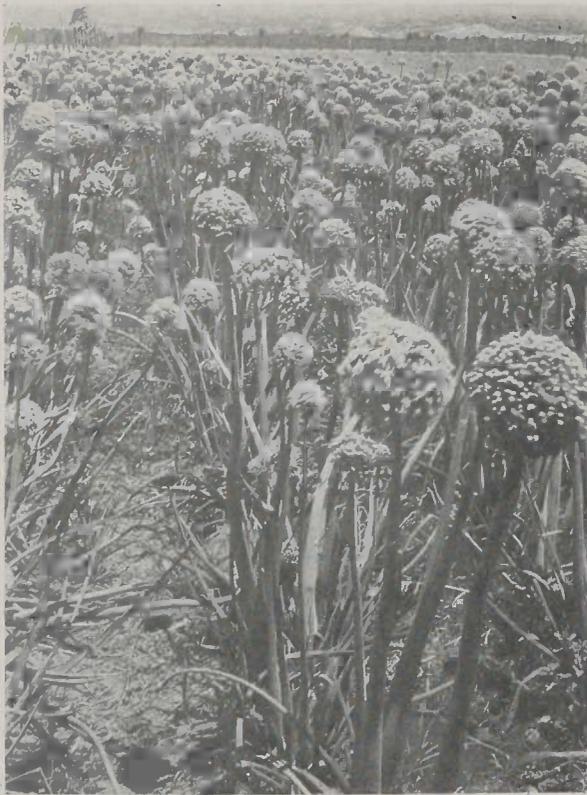
### Thrips Control

One of the worst handicaps to  
(Continued on Page 18)



A field of Valencias in San Simon Valley

## ONION CULTURE



A Heavy Yield of Valencia Onion Seed

(Continued from Page 8)

onion production is the thrips insect. It is found as a small grey or tan mite in the axils of the leaves. To control properly one must dust at frequent intervals with a dust containing nicotine as its principle killing agent. Dusting should be done in the early morning in a complete absence of wind.

Another method is to use liquid

Black Leaf "40" spray, forcing it down under pressure into the crown of the plant. This method is slower than by using the dusting machines and probably more costly from the labor standpoint.

Field sanitation after harvest is especially advisable to prevent the insects living over to the next season. The field should be plowed and all crop residue either turned under or destroyed.

### A JUDGING TEAM FOR NEXT YEAR

**L**AST December a stock judging team of six men and their coach returned from judging competition at the American Royal and International Stock Shows. The showing made by the team in those contests showed that the confidence placed in them was not unwarranted. Coach Stanley, in speaking about the trip, complimented the men very highly on their work and ability. But without detracting from the credit due the team, we cannot help but feel that their success was in no small measure due to the efforts of their coach, E. B. Stanley.

But that trip is over. Now is the time to decide the what, when, and where of another judging contest. Members of this year's team will not be eligible in the same contests next year, but would be eligible for judging in any other field. Several departments in the College have the men and equipment needed to develop a strong judging team. The Agronomy, Horticulture, and Poultry departments could put a strong team in the field if given a little time. A special course in crops judging will be offered this semester which would be an ideal opportunity to train a team for this line of judging. Some definite action should be taken at an early date. The spirit and enthusiasm of the Aggie

Club should not wane, but rather become more active in order that its past success will not be vain.

A history of our first judging team and the benefits of such a trip appeared as a special story in a recent issue. The value of having a judging team is self evident. It then resolves itself into what department shall be chosen to represent Arizona in judging contests next year, and the methods of financing the trip. Now is the time to get started.

### CLEANING POULTRY HOUSES MEANS HEALTHY CHICKENS

"The problem of sanitation is a serious one in winter," says Miss Stutter, "for days or even weeks at a time. As soon as a sick bird is discovered it should be taken away from the rest of the flock. If the illness seems serious, sick birds should be killed and burned at once.

Few people realize that the droppings contain millions of bacteria. In a case of diarrhea the amount of discharge that can be picked up on the point of a pin will hold an uncountable number of the disease bacteria. When the poultry is kept in a house that is not cleaned often, the healthy fowls pick up these bacteria with their feed and soon the disease has spread. This is especially true of cholera which acts very quickly. It is equally true of tuberculosis which acts more slowly, and of worm eggs or small worms which often affect the whole flock."

**Free** **60-page Reference Book**

**Mailing List Catalog No. 55**

**Get Business by Mail**

60 pages of vital business facts and figures. Who, where and how many your prospects are.  
8,000 lines of business covered. Compiled by the Largest Directory Publishers in the world, thru information obtained by actual door-to-door canvass. Write for your FREE copy.

**R. L. POLK & CO., Detroit, Mich.**  
**POLK DIRECTORY BLDG.**  
Branches in principal cities of U. S.