Agricultural Agent in Pima County, Jim Armstrong, is inspecting cucumbers in an experimental plot at the Marana Farm, north of Tucson. This Agricultural Experiment Station farm was used to grow cucumbers, chili peppers, squash, sweet corn and pinto beans. Many varieties of each were grown in the test program. Armstrong points out after this experience that even though the crops can be grown successfully there are many other factors which determine a successful operation in commercial vegetables.

County Agent Looks at . . . Vegetable Production

by J. F. Armstrong

Reduced cotton acreage, due primarily to government programs, and declining net farm income have become serious problems for Pima County agricultural producers. There is an urgent need for alternative high-value per acre crops to bolster the agricultural economy.

Vegetables are potential high-value per acre crops that might possibly fill this need. Little or no data for local production of many vegetable crops is available.

In 1966 the Pima County Extension Office began a program to generate information under local conditions. Working closely with Dr. Norman Oebker, Extension Vegetable Specialist and the Horticulture Department, several test plantings were established on the University Marana Farm.

Selections for the test plantings were sweet corn, three types of summer squash, peppers (bell and chili), three varieties of watermelons, bush beans and several varieties of both tomatoes and cucumbers. Two separate plantings on March 1 and March 21 were made.

The experience from this test provided more information on what not to do rather than on what to do. For example, it became most apparent that timeliness of insect control was very critical. Applying insecticide for corn earworm one or two days too late was equivalent to no control at all.

The Zucchini and Yellow Crooknecked squash produced at very high rates with minimum care. It was recognized however, that the market for squash was very limited thus production of any sizeable quality would not be feasible.

On August 10, 1966 a planting of pinto beans was established comparing two varieties, San Juan Select and Idaho III. Yields were good and the crop was fully matured by November 1. Only three irrigations were used in obtaining this production.

The low cost of production, satisfactory yields, and short growing season required, indicate that some potential production may be warranted.

In early 1967, sources for summer planted (June or July) potatoes to meet this need a test was established in July on the Tom Clark Farm, South of Tucson. The test was abandoned in August because of poor stand. Soil temperatures were too high to promote good stand establishment. It was concluded that summer potato production in Pima County was not feasible nor practical because of the high soil temperature. Potatoes perform best when soil temperatures do not exceed 70 degrees F.

Recently interest was expressed in producing onions locally for dehydration. Plans for test plantings on the Marana Farm are currently in progress. These tests would compare date and rate of planting, various adaptable varieties and their yield potential.

Experience to this point has yielded the following observations:

- Ability to produce an economic crop does not necessarily guarantee success. Markets and marketing are major hurdles which must be considered.
- Vegetable crops require high amounts of a scarce resource, hand labor.
- The proper timing of most cultural practices is extremely critical.
- In most cases specialized equipment is necessary for successful production.
- Price fluctuations from year to year do not lend themselves to stable incomes.

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