How About Horticulture?

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Do you enjoy working with plants and watching them grow? If this type of activity is one of your hobbies, you have some of the fundamental traits of a horticulturist.

Young people entering college today have a wide range of courses from which to select their major field of study. At the University of Arizona, horticulture is one of 14 fields offered in the college of agriculture.

The content of both undergraduate and graduate courses is planned to prepare workers to meet job requirements in Arizona and neighboring states. About 12 percent of all graduates of the college have majored in horticulture and have entered this field of work. The demand is steadily growing for workers with regular college preparation and advanced technical training to fill responsible horticultural positions in the western states.

What Is Horticulture?

The majority of workers in horticultural jobs are engaged in producing, processing and marketing fruits, vegetables, flowers and ornamental plants. Modern horticultural practices involve both the art and the science of production, processing and marketing. In addition to a "green thumb," the successful horticulturist today must have a thorough working knowledge of the sciences which are closely related to horticultural plants and products.

The specific abilities and aptitudes required of an individual are determined largely by the type of work he plans to enter. The following are some of the major groups of employment opportunities and the general nature of the work in each.

Research and Technical Work

Research workers are employed by federal and state departments and private concerns to find solutions to problems in plant improvement, cultural-management practices, transportation, processing, storing and marketing fruits and vegetables. The duties include accurate work with materials and apparatus usually in the laboratory, with emphasis on thinking ability and the use of scientific principles to discover new and improved practices. Preparation for this work includes specialized study at the graduate level.

Jobs of a technical nature include a broad range of activities by individuals serving as inspectors, regulatory agents, fieldmen, managers and superintendents for governmental departments and private companies.

These workers are concerned with maintaining the efficiency of production practices and the quality of all horticultural products from producer to consumer. Since the duties are specialized, the training includes college work and usually special training and experience on the job.

Production Management Jobs

The responsibilities of workers in these jobs are concerned directly with economic production of specific horticultural products. The duties therefore include the art, the science and business of production and marketing. Employment includes work on salaries and those who own their own land and other facilities conduct their own operations. The owner-operator type of enterprise will generally give higher income than any other kind of employment in the field of horticulture. Placement opportunities, however, are open to relatively few beginners because of the high capital requirements and financial risk inherent in production units large enough for economical operation.

There are, however, opportunities for beginners to develop equity and experience required to enter production horticulture as owner-operators by serving as field men or superintendents. There is a broad range of such jobs available in the western states, including work on vegetable farms, and in citrus groves, deciduous orchards, date gardens, vineyards, nurseries, flower and seed production and related specialized enterprises. Work and management experience prior to and during the student's college years is desirable for maximum progress in production management jobs.

Public Service and Business Jobs

Employment of this type ranges from teaching and other educational work to strictly business jobs, such

(Please turn to Page 11)

President Inspects University Farms

ON THE COVER, Dr. Richard A. Harvill, President of the University of Arizona, (right) is shown examining some Valencia oranges grown on the Citrus Experiment Farm near Tempe with Dr. Leland Burkhart, Head of the Department of Horticulture, (left) and Dr. R. H. Hilgeman, Superintendent of the citrus farm, (center). Dr. Harvill has already made his active interest in agriculture known by beginning a tour of the University's Agricultural Experiment Station farms at Tucson, Safford, Mesa, Tempe, and Yuma.

The experiment in which these Valencia oranges were grown concerned an evaluation of the effects of soil moisture on production. In the experiment, trees were irrigated on six different schedules in which water was applied at rates of 32 to 64 inches per year. At the end of the first 2 years it has been shown that trees can be grown without wilting by applying only 32 inches of water. However, as additional amounts of water are applied the sizes of the fruit and leaves and amount of trunk growth are significantly increased, but the total amount of soluble solids in the juice of the fruit is significantly decreased. Measurements of fruit show that to maintain maximum growth the soil moisture in the surface foot must not be allowed to drop below the upper limit of the wilting range. This limit is associated with tensiometer readings of about 350 centimeters of water at a depth of 30 inches.

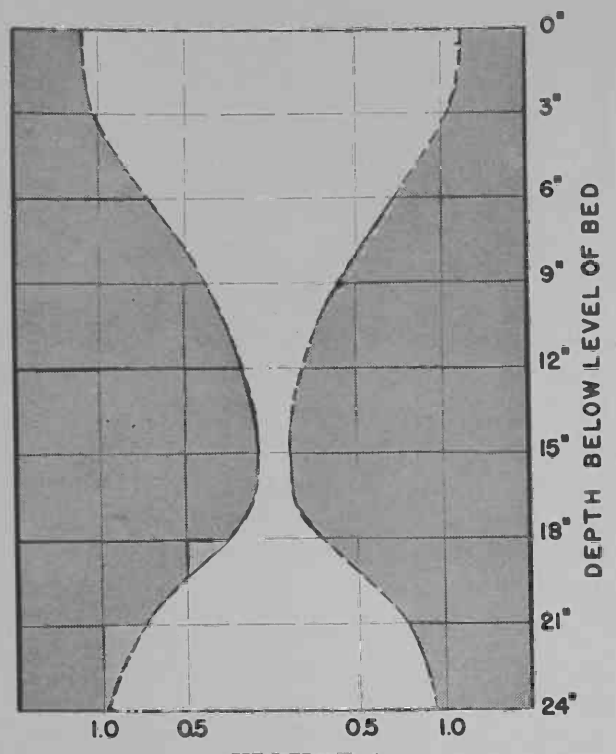

FIGURE 1.

Graphical representation of water percolation rates found in soils where severe yellowing occurred. Note the excellent percolation rate in the upper 6 inches and the severely retarded rate between the 12 to 18-inch depth.

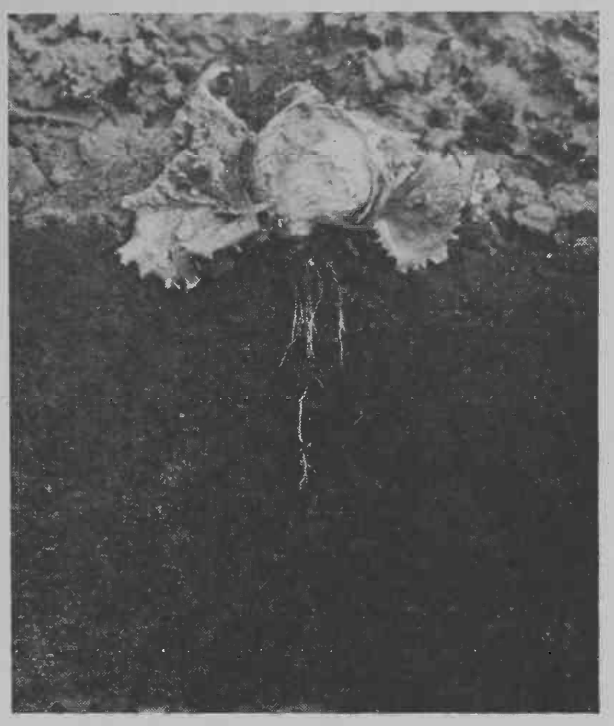

FIGURE 2.

Lettuce yellowing related to unfavorable soil-root conditions. Compare limited root systems with extensive root system in Figure 4. This condition is related to soils with the compacted zone shown in Figure 1.

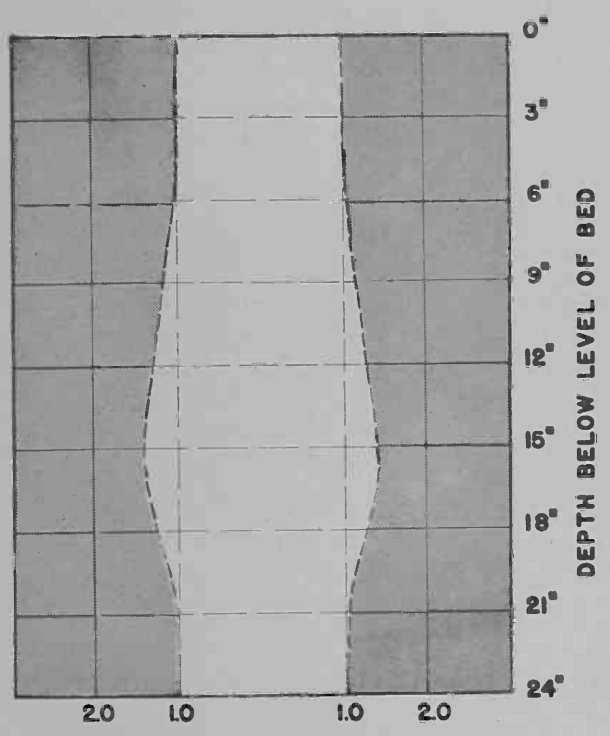

FIGURE 3.

Graphical representation of water percolation rate found in soil where no yellowing occurred. Note the excellent percolation rate throughout entire depth.

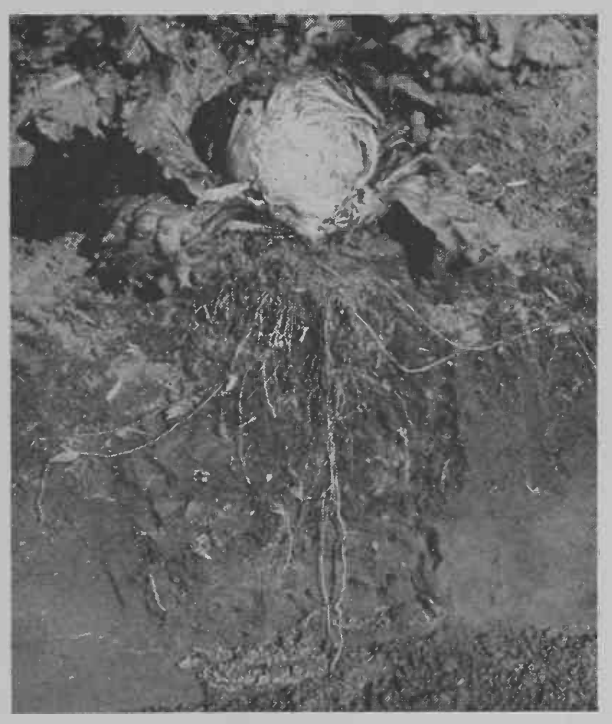

FIGURE 4.

Healthy spring lettuce, yellow free, grown under favorable soil conditions as indicated in Figure 3. Compare healthy root system with the limited root system in Figure 2.

Daily (Except Sunday)

KRUX, Glendale, 6:55 a.m.—Farm Front—Maricopa County Extension Agent.

Sundays

KOY, Phoenix, 9:05 a.m.—Demonstration Garden (County Agent) Program.

Mondays

KYMA, Yuma, 7:00 a.m.—On the Farm Front.

KCLS, Flagstaff, 8:45 a.m.—Your County Agent Reports.

Wednesdays

KYUM, Yuma, 6:45 a.m.—Yuma County Agricultural Extension Service Radio Program.

Fridays

KCKY, Coolidge-Casa Grande, 4:30 p.m.—Pinal County Farm and Home Program.

Saturdays

KGLU, Safford, 1:15 p.m.—Stepping Along With the Agricultural Extension Service.

KOY, Phoenix
KYMA, Yuma
KTUC, Tucson
KSUN, Bisbee
} 12:00 to 12:30 p.m.

Arizona Farm and Ranch Hour, presented by the Radio Bureau, University of Arizona, and the College of Agriculture.

Mondays and Fridays

KGPH, Flagstaff, 9:45 a.m.—Coconino County Farm and Home Program.

How About Horticulture?

(Continued from Page 2)

as salesman.

Teaching positions in horticulture and related educational work are available in colleges, federal and state agricultural extension departments and to a limited extent with private concerns.

Landscaping includes the laying out, planting and care of plants for home grounds, golf courses, parks and playground areas, for federal, state and county departments.

Business type jobs include the buying and selling of fruits, vegetables and ornamental plants, seeds, horticultural equipment, fertilizers, insecticides and other supplies.

Irrigated Pastures

(Continued from Page 3)

to the adoption of this practice. It provides for complete utilization of the crop, stops soil packing, reduces bloat danger, increases crop yield, and requires less fencing. Cattle get closer attention and cleaner water at less cost, and maintenance costs for irrigation ditches and borders are lower. Interruption of the green feed production during the winter season, especially from December 15 to January 30, is a problem both in grazing and in soilage practices. However, a pen feeding unit offers the cattle feeder a means of adujsting to variations in feed supply. Such facilities also allow for an increase in the capacity of the operating unit and give the livestock man more freedom in purchasing, feeding and marketing his livestock.

—E. B. Stanley is Head of the Department of Animal Husbandry.