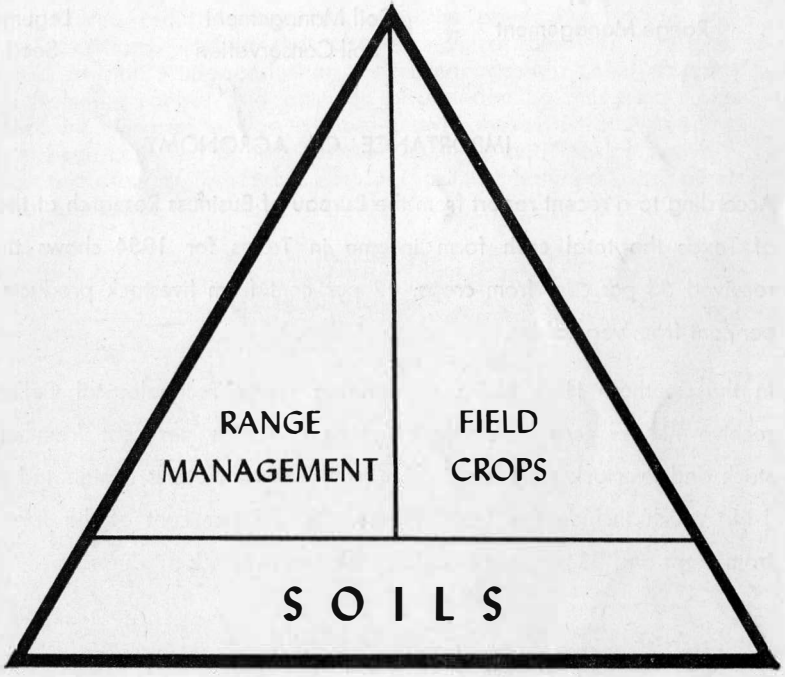
BULLETIN OF TEXAS TECHNOLOGICAL COLLEGE

AGRONOMY

at

TEXAS TECH



LUBBOCK, TEXAS

AUGUST, 1955

What Is Agronomy?

Agronomy is the field of agriculture dealing with the technology of plant development and crop production. This field treats the practical and the scientific phases of producing agricultural income from our soil resources through plant growth. Briefly, Agronomy as taught at Texas Technological College embraces the following divisions and subdivisions:

Range Management	Soils	Field Crops
Range Conservation	Soil Fertility	Plant Breeding
Range Grasses	Soil Chemistry	Crop Production
Range Revegetation	Soil Morphology	Crop Judging
Range Livestock	Soil Microbiology	Forage Crops
Range Ecology	Soil Genesis	Grain Crops
Range Management	Soil Physics	Fiber Crops
	Soil Management	Legume Crops
	Soil Conservation	Seed Production

IMPORTANCE OF AGRONOMY

According to a recent report from the Bureau of Business Research at the University of Texas the total cash farm income in Texas for 1954 shows that farmers received 55 per cent from crops, 42 per cent from livestock products and three per cent from vegetables.

In the Southern High Plains surrounding Texas Technological College farmers receive 91 per cent from sale of crops and nine per cent from sale of livestock and livestock products. In the crop reporting areas designated as 1-S and 1-N, which include the Texas Panhandle, 77 per cent of the farm income is from crops and 23 per cent from livestock and livestock products.

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RANGE MANAGEMENT

Range management involves useful and profitable plant production on lands largely unsuitable for cultivation and the harvesting of the plant material by the grazing of range livestock.

More than one-half the land area of the United States is used for pastures and range for livestock. Grasses cover the soil and bind it with their roots, add organic matter, reduce erosion, improve the physical condition and under many conditions produce the most economical feed for livestock. Application of available information on range management could increase the income from the ranges and pastures of America by more than one hundred per cent. Grasses similar to those shown above in the Agronomy nursery have been collected throughout the Southwest and Mexico and are being tested for drought resistance, yielding ability, leafiness and other desirable characteristics.

Photograph Courtesy of Soil Conservation Service

Nearly four million acres of range land are infested with one or more of 150 bothersome tree shrubs and half-shrubs such as mesquite, sagebrush, post oak and chaparral. Often twenty different kinds of these plants occur on one ranch. Dense brush reduces forage production, lowers quality of feed, interferes with care of livestock and causes many other disadvantages. Control of these undesirable plants constitutes a profitable management practice on our Southwestern ranch lands.

Photograph Courtesy of Texas Agricultural Experiment Station No. 8

A knowledge of our Soil resources, including depth of good soil, relative fertility and physical limitations is basic.

Determination of the rate of water penetration in a soil type provides information useful in designing and installing moisture and soil conserving structures or laying out suitable irrigation systems.

Photograph Courtesy of Texas Agricultural Experiment Station No. 8

Proper soil management in watering and maintaining desirable physical condition is needed.

SOIL SCIENCE

Soil Science deals with the understanding and management of those factors which contribute to the potential productivity of the soil.

Good soils, intelligently managed and combined with proper varieties of field crops lead to high yields.

Photograph Courtesy of Soil Conservation Service

Fertilizer application supplements but does not replace management practice designed to maintain a good level of soil fertility.

Harvesting, proper storage and marketing of our crops complete the cycle which leads to profitable crop production on the cultivated acres of our country.

Photograph Courtesy of Texas Agricultural Experiment Station No. 8

FIELD CROPS

Field crops training is concerned mainly with the development, production and utilization of plants which are useful to man for food, fiber and shelter.

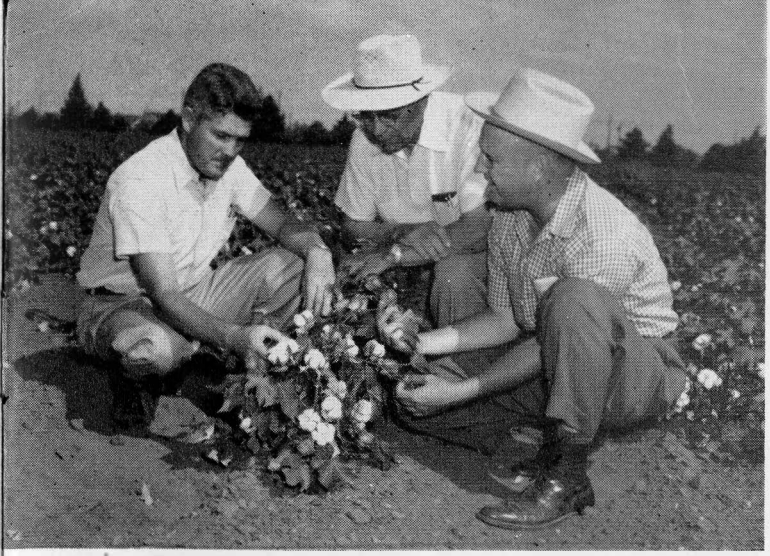
good production practices involve . . .

Photograph Courtesy of Texas Agricultural Experiment Station No. 8

PROPER CULTURAL METHODS — Seed bed preparation shown above breaks the hard pan yet leaves the crop residue on or near the soil surface

AND CROP ROTATIONS — Fields of legumes (similar to this field of sweet clover) are soil builders under irrigation

Photograph Courtesy of Texas Agricultural Experiment Station No. 8



Photograph Courtesy of Texas Agricultural Experiment Station No. 8

WITH GOOD SEED OF AN IMPROVED ADAPTED VARIETY — A stormproof cotton plant, the result of plant breeding

INCREASES YIELDS OF HIGH QUALITY PRODUCTS — Good seed and good practices resulted in the excellent yield of hegari shown in the picture below

Photograph Courtesy of Texas Agricultural Experiment Station No. 8

ACTIVITIES

1954 Collegiate Crops Judging Team and Coach. This was the third consecutive team from Texas Tech to win first place at both National and International contests at Kansas City and Chicago respectively in competition with Agronomy students from colleges throughout the United States and Canada.

WHY NOT CHOOSE A CAREER IN AGRONOMY AND TRAIN FOR IT AT TEXAS TECH

Positions Open To Students Completing Major Work in Agronomy at Texas Tech Include:

Farmers	Farm Managers	Farm Consultants
Teachers	Range Conservationists	Plant Breeders
Soil Surveyors	Soil Conservationists	Seed Growers
County Agents	Fertilizer Dealers	Grain Inspectors
Club Leaders	Range Specialists	Journalism
Research Workers	Range Surveyors	Radio
Salesmen	Land Appraisers	Television

Visit or write the Department of Agronomy, Texas Technological College, and talk over your plans for a career in Agronomy.

DIVISION OF AGRICULTURE

Agricultural Economics — Agricultural Education — Agricultural Engineering
Agronomy — Animal Husbandry — Dairy Industry
Horticulture and Park Management

Senior students visiting a nearby Experiment Station.