

Synopsis for Main Course Topics

Agricultural Conservation Technical Training Basic “Boot Camp”

Resource Information

The objective of this section is to provide a comprehensive approach to obtaining the resource data that is necessary to assist clients with making decisions. All resource concerns including soil, water, animals, plants, air and human must be considered. The information is collected and the findings are discussed with the client to help attain the sound management of resources.

Soils

Students will be taught evaluating Soils for the basis of all land use decisions. They will learn about basic soil properties and interpretations, how they are defined and how soil maps are made. Students will be shown how to get soil information from the Web Soil Survey and be introduced to the effects of land use and land management on soil and other natural resources.

Agronomy

Foundations of agronomy with emphasis on production principles and fundamentals of cropland conservation systems will be presented. Fundamental principles of soil erosion prevention and nutrient management will be emphasized. Integration of management and conservation standards on crop, pasture, and hay land to benefit the producer and to protect the environment will be stressed. Characteristics of various common plant species and how they grow are included.

Hydrology

Basic concepts in hydrology will be taught including the use of hydrologic information related to conservation, watershed delineation, soils and land-use impacts on runoff, rainfall influences on hydrology, all leading to the design of basic engineering conservation practices that control rainfall runoff. The computerized version of the NRCS Engineering Field Handbook Chapter 2, Hydrology, will be taught. Field verification of computer model input data will also be taught as well as sensitivity of results to the various input parameters.

Construction Materials/Quality Assurance

This topic is important to the students overall understanding of construction materials and techniques to ensure effective planning, design, and quality assurance. The student will be able to properly identify construction materials, methods and techniques used in the installation of Ag. BMP's. Some of the topics that will be covered are; soils, aggregates, pipes, geotextiles, and concrete.

Laws and Regulations

A basic understanding of laws and regulations is important for students to assure effective and comprehensive technical assistance is provided when assisting agricultural producers in meeting appropriate program requirements. Students will be familiarized with state and federal environmental laws and regulations and the interaction and application of those laws and regulations as they assist producers in the development and completion of resource management projects.

Wildlife Concerns

Fish & wildlife are public resources which occur on private land, and will be addressed as a consideration for decision makers to incorporate into their resource management projects. Students will learn various aspects of fundamental wildlife habitat components (food, water, shelter, and space) for three wildlife species. These wildlife habitat components will also be reviewed in the field.

Pasture, Forage, and Grazing

Information and guidance will be provided to participants on how to identify what is a pasture, evaluating pastures to identify resource concerns, and calculating forage balances for livestock. Livestock evaluation processes will be reviewed allowing students to become familiar with determining livestock health and management skills of agricultural producers. Conservation practices to address resource concerns will be discussed and the Prescribed Grazing Standard, Specification and Job Sheet will be reviewed. Students will complete an on-farm forage balance worksheet and become familiar with pasture evaluation tools and processes.