

## **Synopsis for Main Course Topics**

### **Agricultural Conservation Technical Training Level II “Boot Camp”**

#### **Quality Criteria** *(Agronomy & Engineering Tracks)*

The objective of this section is to expand on the resource concerns discussed on Level 1 and provide the definition of an acceptable base level of treatment for each resource concern. The information collected forms the basis of data needed for the client to make resource concern decisions and encompasses the first 3 steps in the conservation planning process.

#### **Conservation Agronomy** *(Agronomy Track)*

Developing today's crop land conservation systems requires planners to have a working knowledge of how agronomic managements and practices work together synergistically to protect natural resources and improve production efficiencies. Evaluation of soil and water resource concerns with respect to current standards and regulations for soil erosion and nutrient management will be emphasized. Identification of critical resource concerns and the development of alternatives to address them are included.

#### **Pasture/Grazing** *(Agronomy Track)*

Expansion of the information from Boot Camp I on how to identify a pasture, identify resource concerns, and calculating forage balances for livestock will be the main topics. Basic plant identification of common grasses and legumes will be covered. Simple calculations and procedures to be able to identify a managed pasture versus a non managed pasture will be emphasized. Conservation practices to address resource concerns will be identified. Students will participate in on farm forage balance exercises and utilize pasture evaluation tools in the field to better understand Prescribed Grazing.

#### **Elementary Soil Engineering** *(Engineering Track)*

All structural measures and many land treatment measures for which we provide technical assistance involve the use of soil as a building material or supporting medium. This Lesson is designed to explain basic soil concepts that relate to engineering, present the engineering classification and description system, and present the procedure for performing site investigations.

These skills enable conservationists to assist in the application of complex practices and select appropriate locations.

#### **Hydraulics** *(Engineering Track)*

Basic concepts in hydraulics will be taught related to applications for conservation work. Focus will largely be on the analysis of open channel conveyance systems that occur in typical agricultural settings. This training will cover topics related to roof runoff management, diversions and waterway design based on allowable tractive stress, and use of the NRCS Hydraulics Formulas software. Appropriate computer programs for field office use will be taught.

### **The Human Side Of Quality Assurance** *(Engineering Track)*

This topic is important for Quality Assurance personnel demonstrating techniques, in dealing with contractors, landowners, and approving officials during construction of Ag. BMP's. Upon completion of the training, the trainee will have an understanding of Quality Assurance roles and responsibilities, good Quality Assurance techniques, and will be able to prevent problems and fix problems that occur. Some of the topics that will be covered are; field visits to farms with Ag. BMP's under construction, tour a quarry processing various aggregates, and tour of a concrete batch plant.

### **Conservation Planning** *(Agronomy & Engineering Tracks)*

The objective of this section is to provide an understanding of the first 6 steps of the conservation planning process. The first 6 steps encompass identifying problems, determining objectives, inventorying resources, analyzing resource data, formulating alternatives and evaluating alternatives. This overview will assist the class participants with data collection and analysis on the field trip and subsequent conservation alternatives that class groups will develop for presentations.

### **Wildlife Resource Concerns** *(Agronomy Track)*

Students will become familiar with Wildlife Habitat Evaluation worksheets. These worksheets are used to evaluate the fundamental habitat components identified in Boot Camp I. Wildlife Habitat Evaluation worksheets will be used in the field on Cropland and/or Pasture & Hayland.