

Soil and Land Evaluation Program

The purpose of the Soil and Land Career Development Event is to teach participants to recognize soil factors and assess soil characteristics that affect agricultural production practices and suitability for selecting a home site.

Purpose

Land and home site evaluation is an event designed to "evaluate" a soil or set of soils. The purpose of land and home site evaluation is to teach participants to recognize soil factors and characteristics that affect agricultural production and suitability for selecting a home site. This will help the participants to make wise decisions in managing soil and land resources.

Objectives

Land evaluation can help participants learn to:

- Identify basic soil differences and properties.
- Determine how physical and chemical soil properties affect crop growth.
- Identify reasons why various soils respond differently to management practices.
- Determine the influence of topographic features on soil productivity, land protection and native vegetation.
- Define and understand soil and water conservation practices.
- Determine proper land use and management.
- Determine how soil properties may be used as a basis for selecting a home site.

How it works

Land and home site evaluation is a training method similar to livestock evaluation, using classes of "fields" instead of classes of animals. Fields are evaluated according to established criteria for their suitability and limitations for various uses. A field refers to a plot of land 100 feet square selected from a uniform portion of a farm or other area. Land and home site evaluation consists of four fields, three for land evaluation and one for home site evaluation. A soil profile is exposed to allow participants to examine soil depth, topsoil depth and soil structure. Containers with topsoil and subsoil are placed near the profile for determination of texture and permeability. Official scoring of the fields is by qualified scientists. The officials set climatic conditions, soil test information and other factors such as flooding and water table information that are not obvious. These conditions are given on a placard located at each site.

General rules and information

Regional Field Days are held at four or five locations around the state during the months of September and October. The top three teams from each FFA district at the Regional Field Days qualify for the state event.

A school (FFA Chapter) may have unlimited participants in the Regional Field Days but an official team of three to five members must be designated at the Regional Field Day and at the state event.

The State event is held in Burley, Idaho, usually on the second Wednesday of October. This is typically after Columbus Day. The cost is \$50 per team. Registration and the organization meeting for the State event begin at 7 a.m. at Burley High School.

State event rules

Team make-up:

- A chapter team will consist of three to five individuals, with the scores of the high three members comprising the team score.
- The top three teams from each FFA District will be eligible to participate at the state event.

Contestants can have the following pieces of equipment:

- Unmarked clipboards (recommend clear boards)
 - Pencil — #2 with good eraser
 - Knife or digging tool
 - Towel or rag
 - Contest cards
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- No calculators, cell phones, measuring devices of any kind or personal water bottles are allowed. Water to moisten soil will be provided as needed.
 - Evaluation cards will be handed out after the practice site has been completed.
 - No talking is allowed within the field description site.
 - Participants will not disturb the area between the flagging in the soil pits.
 - A white nail will mark the top of the soil profile in the flagged area. Other white nails may be used in the flagged area for topsoil present or depth of soil.
 - If site information is reviewed, it will be done at the end of the state event, not at each site.
 - The **official instructional handbook** for the Soil and Land Evaluation Career Development Event is [Bulletin 795: Soil and the Environment, A Land and Homesite Evaluation Handbook and Training Guide.](#)
 - A three-person team of event checkers will check the official placings at each site before the contest begins. Any errors on the official scorecards will be corrected only after consultation with the state coordinator. Unless a clear error has been made, all determinations (e.g., % slope, texture, soil depth, etc.) made by contest officials are final.

Format and scoring**Land Evaluation Scorecard, 3 sites****Part I Soil and Land Characteristics****Factors and Points**

- A - Surface Texture — 4
- B - Subsoil Texture — 4
- C - Subsoil Permeability — 4
- D - Depth of Soil — 3
- E - Slope — 3
- F - Erosion loss — 3
- G - Surface runoff — 3
- H - Drainage — 3
- I - Climate — 3
- J - Major factors — 10*
- Total points, Part 1 — 40

Part II Land Capability Class and Recommended Land Treatments**Treatments and Points**

- K - Land capability class — 5
- L - Vegetative — 13*
- M - Mechanical — 9*
- N - Fertilizer/Soil amendment — 8*
- Total points, Part II — 35
- Total points, both parts — 75
- *One point given for each item (correctly marked or not marked)

Homesite Evaluation Scorecard, 2 sites:**Part I Soil and Land Characteristics****Features and Points**

- A through I and Final Evaluation — 2 each
- Total points, Part I — 20

Part II Limitation for various uses of site for a single family dwelling without a basement.**Degree of Limitation and Points**

- Each box under the columns: — 2 for each box including unmarked
- 1 - Foundation without basement — boxes and final evaluation
- 2 - Lawns, Shrubs and gardens
- 3 - Septic System
- 4 - Sewage lagoon
- Total points, Part II — 80
- Total points, both parts — 100

3 sites Land evaluation — 225

2 sites Homesite evaluation — 200

Total per individual — 425

Total per team (top 3 individuals) — 1,275

Awards for FFA and 4-H

Awards will be presented at a ceremony following the event. FFA and 4-H will be recognized separately at this ceremony. The top 10 teams and individuals in each organization will be recognized. Individuals and teams from first through fifth place will receive plaques (pins for individuals) based on their rankings with clarification as follows:

- The number of individual plaques awarded will correspond to the number of teams that compete up to a maximum of five individual plaques. For example, if two 4-H teams compete, two individual 4-H plaques will be awarded.
- 4-H team plaques will be awarded to the first-place team and up to fifth place, but there will be one award less than the total number of team's participating. For example, if three 4-H teams compete, then only two winning team plaques will be awarded.
- The top two winning teams (either FFA or 4-H) at State will receive money to attend the National Soil Judging competition at Oklahoma City, OK, in May of the following year of the State event.

Background

The Idaho State Land and Soil Evaluation program is a cooperative effort of many individuals and organizations. It involves youths from both FFA and 4-H. The program was initiated at Burley in 1971 when Soil Conservation Service soil scientist — Glen Logan — worked with a group of Future Farmers of America at a state event. Since that time the program has grown to include over 500 FFA and 4-H youths competing in regional events throughout Idaho and the state event at Burley, Idaho. Five regional land judging field days and the state event are held during the month of October each year.

Maynard Fosberg land judging endowment

In 1985 the Maynard Fosberg Land Judging Endowment was established through the College of Agricultural and Life Sciences (CALs) at the University of Idaho to help support the program financially and provide a scholarship to an incoming freshman in soil science that participated in the Soil and Land Evaluation Program. Individuals and organizations wishing to contribute to this endowment should contact the CALs Development office.

Evaluation handbook and training guide | Event sponsors and partners

University of Idaho College of Agricultural and Life Sciences: Extension soil specialists and soil scientists help coordinate the overall state program, schedule and organize regional events and the state events, provide technical support, and conducts the state event and some of the regional events. They maintain the official **instructional handbook**, [Soil and the Environment, A Land and Homesite Evaluation Handbook and Training Guide \(Bulletin 795\)](#). University of Idaho Extension county faculty work with FFA and 4-H leaders and members in preparing and participating in the regional and state events.

- To download or purchase copies of the **instructional handbook** [Soil and the Environment, A Land and Homesite Evaluation Handbook and Training Guide \(Bulletin 795\)](#) visit the publications website.
- Idaho Division of Professional-Technical Education: The Agriculture and Natural Resources program manager assists in the development and coordination of the regional and state events. Idaho agricultural science and technology instructors, the University of Idaho Department of Agricultural Education, Leadership and Communications, University of Idaho Extension 4-H Youth Development and district FFA organizations support the program.
- U. S. Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS): Soil scientists and soil conservationists work to organize, provide technical support, and help conduct the state and regional events.
- Idaho Association of Soil Conservation Districts: IASCD Auxiliary and individual Soil Conservation Districts each support the program through planning, conducting events and contributing financial resources supporting the events and/or to the Maynard Fosberg — Land Judging Endowment. The East and West Cassia Soil Conservation Districts have been the major organizers and sponsors of the state event in Burley for many years.

Training materials

- Thein Soil Texture by Feel Analysis
- Soil and Land Evaluation Skills Checklist
- Soil Triangle (example 1)
- Soil Triangle (example 2)