URBAN SOILS RULES

Purpose

The urban land and soil judging CDE is an educational activity designed as a practical method of teaching students to evaluate land and soil to determine its potential use for urban, homesite, and other nonfarm uses.
Date/Location
District: Set annually by the respective district.
State: Set annually by the Agricultural Education Service

CDE Rules
NEW FOR 2005-2006 SCHOOL YEAR!!! The top 5 individuals from each district will participate at the state level, even if their teams do not make the top 5 team cut, you must contact the coordinator and give them the results for your district.

1. Each district may decide how many teams and how many individuals per team may participate in the district CDE.
2. The top five teams from each district may compete in the state CDE. However, only one team from any one school may participate in the state CDE. If one of the top five schools in the district can not participate it is the responsibility to contact the next team in line so that they may participate in the state CDE.
3. A team, at the state CDE, shall consist of four individuals, with the top three scores making up the team score.
4. Three or four soil sites are selected in advance of the CDE day. These sites should be chosen to show soil conditions that affect urban uses, and should be located within easy walking distance of each other. By locating the pits near the center of a uniform area, the site can be judged as an area on which the slope and other soil properties can be determined. Care should be taken to select sites where clear-cut decisions can be made relative to the correct marking of all sections of the scorecard. Avoid "borderline" conditions if at all possible.
5. A pit is dug for each representative site. Each pit should be dug at least 60 inches deep. The pit should be of sufficient length to accommodate contestants. One side of the pit should be perpendicular and located so you will receive the direct rays of the sun, insofar as possible.
6. A time limit of 15-20 minutes is sufficient for each group to use in judging one soil site. At the end of the prescribed time limit, a signal will be given, and the groups will rotate to the next site. This procedure is continued until each group of contestants has had a chance to judge each of the sites.
7. The area to be used in determining slope should be marked with stakes.
8. Students should bring their own clipboards, digging tool, water bottles, yardsticks, slope board and #2 lead pencils. A gallon water jug should be at each site.

CDE Format
1. The soil pits and surrounding areas are evaluated on the following basis:
a. Soil properties and their limitations
l slope
l land form
l flood hazard
l soil stability
l texture, surface
l texture, subsoil between 20 and 40 inches
l depth to seasonal high water table
l depth to bedrock
l Is there a hard, dense soil layer within 4 feet of the surface
b. Overall rating for the land use
c. Recommended management practices.
Written test- up to 25 questions
Soil Survey- up to15 questions

References
The references listed below are available from the Ohio Ag Ed Curriculum Materials Service, The Ohio State University:
1. Judging Land and Soil for Urban Use
2. Ohio Urban Land Judging Scorecard
Scoring Guide
1. Individual
(Possible Score)
Part 1: 10 points for each soil prop-

erty correctly identified 100 points
Part 2: 5 points for each correct rating 20 points
Part 3: 4 points for each correct management practice decision 104 points
Total Possible 224 points
224 points per site x 4 sites = 896 points
Written test (15 questions) 60 points
Soil Survey (15 questions) 40 points
Total Possible 996 Points
(soil survey questions will be a seperate site)
2. Team
996 points x 3 individuals = 2988 Total Possible Points
3. Tied team scores will be broken based on the following criteria:
First criteria: Part I total points of all pits
Second criteria: Written test
Third criteria: Soil Survey
4. Tied individual scores will be broken based on the following criteria:
First criteria: Part I total points of all pits
Second criteria: Written test
Third criteria: Soil Survey

Examples of Urban Related Soil Survey Report Questions for State FFA Urban Judging CDE.
(Using Franklin County, Ohio Soil Survey)
1. What soil properties limit the use of Ritchey silt loam, 12 to 18 percent slopes, eroded (RhD2) for dwellings with basements?
_____ a) Floods, shrink-swell
_____ b) Slope, wetness
_____ c) Depth to rock, slope
_____ d) Ponding, low strength
2. What is the probability of finding a source of sand and gravel in Eldean silt
loam, 0 to 2 percent slopes (E1A)?
_____ a) Good
_____ b) Fair
_____ c) Poor
_____ d) Unsuited
3. What is the degree of limitation for using Miamian silty clay loam, 6 to 12 percent slopes, eroded (M1C2) for lawn and landscaping?
_____ a) Slight
_____ b) Moderate
_____ c) Severe
_____ d) Very severe
4. What is the typical depth to mottling in Bennington silt loam, 2 to 6 percent
slopes (BeB)?
_____ a) 5 inches
_____ b) 10 inches
_____ c) 14 inches
_____ d) 9 inches
5. What is the drainage class of Condit silt loam (Cn)?
_____ a) Well drained
_____ b) Moderately well drained
_____ c) Somewhat poorly drained
_____ d) Poorly drained
6. What is the color of the Eldean silt loam, 0 to 2 percent slopes (E1A) surface layer?
_____ a) Brown
_____ b) Yellowish brown
_____ c) Dark grayish brown
_____ d) Black
7. What is the depth to seasonal high water table in Celina silt loam, 2 to 6 percent slopes (CeB)?
_____ a) < 12 inches
_____ b) 12 to 18 inches
_____ c) 18 to 36 inches
_____ d) 36 to 48 inches
8. What is the permeability in the substratum of Ockley silt loam, 0 to 2 percent slopes (OcA)?
_____ a) Slow
_____ b) Moderate
_____ c) Very slow
_____ d) Very rapid
9. What is the major land use on Ross silt loam, occasionally flooded (Rs)?
_____ a) Recreational uses
_____ b) Farming
_____ c) Buildings
_____ d) Forestry
10. What soil is the best source of topsoil?
_____ a) Ross silt loam, occasionally flooded (Rs)
_____ b) Pewamo silty clay loam (Pm)
_____ c) Miamian silt loam, 2 to 6 percent slopes (MkB)
_____ d) Eldean silt loam, 0 to 2 percent slopes (E1A)
Answers to Urban Related Questions
(All answers are in the Franklin County, Ohio Soil Survey)

ANSWER LOCATION IN LOCATION IN SOIL SURVEY

1. c) (Depth to bedrock, slope) Page 151 of soil survey and next to last paragraph of RhD2 map unit on page 56.
2. a) (Good) Page 160 of the soil survey and the last sentence of the next to last paragraph of E1A map unit on page 32.
3. b) (Moderate) Page 150 of the soil survey.
4. d) (9 inches) Second paragraph of BeB map unit on page 14.
5. d) (Poorly drained) First sentence of Condit silt loam description on page 25 and first line of Condit soil series description on page 88.
6. a) (Brown) First sentence of the second paragraph of the E1A map unit description on page 31.
7. c) (18 to 36 inches) Last sentence of the fourth paragraph of the CeB map unit on page 23. Also found on page 182.
8. d) (Very rapid) First sentence of the fourth paragraph of OcC2 map unit on page 53.
9. b) (Farming) Fifth paragraph of Rs map unit on page 56.
10. a) (Ross silt loam, occasionally flooded) Table 12, construction materials on pages 159 thru 163.