

SOIL INFORMATION: CAPABILITY CLASSES

CAPABILITY GROUPING of soils shows their suitability for most kinds of farming. It is a practical classification based on the limitations of the soils, the risk of damage when they are used for the ordinary field crops or sown in pastures, and the way they respond to treatment. The soils are classified according to degree and kind of permanent limitations, but without consideration of major and generally expensive landforming that would change the slope, depth, or other characteristics of the soils, and without consideration of possible major reclamation.

In the capability system, the kinds of soils are grouped at three levels: capability class, subclass and unit.

CAPABILITY CLASSES, the broadest groups are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use, defined as follows:

CLASS I < *Light green* > soils have few limitations that restrict their use.

CLASS II < *Yellow* > soils have severe limitations that reduce the choice of plants or that require moderate conservation practices.

CLASS III < *Red* > soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

CLASS IV < *Blue* > soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

CLASS V < *Dark Green* > soils are not likely to erode but have other limitations, impractical to remove, that limit their use largely to pasture, range, woodland, or wildlife food and cover.

CLASS VI < *Orange* > soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife food and cover.

CLASS VII < *Brown* > soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife food and cover.

CLASS VIII < *Purple* > soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife food and cover, water supply, or to esthetic purposes.

CAPABILITY SUBCLASS are soils groups within one class: they are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, IIe.

The letter *e* shows that the main limitation is risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation; *s* shows that the soil is limited mainly because it is droughty, stony, or has a shall root zone; and *c*, shows that the chief limitation is climate that is too cold or too dry.

CAPABILITY UNITS are soil groups within the subclasses. The soils in one capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity and other responses to management. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, IIe-4 or IIIc-6. Thus in one symbol, the Roman numeral designates the capability class, or degree of limitation; the small letter indicates the subclass, or kind of limitation, as defined in the foregoing paragraph; and the Arabic numeral specifically identifies the capability unit within each subclass.