

United States Department of Agriculture
Natural Resources Conservation Service

03/25/2002

White Sands Missile Range, New Mexico, Parts of Dona Ana, Lincoln, Otero, Sierra and Socorro Counties
Table B1.--Land Capability and Yields per Acre of Crops and Pasture

Map symbol and soil name	Land capability		Alfalfa hay		Cotton lint		Pasture	
	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM
Ac:								
Active Dune Land-----	7e	---	---	---	---	---	---	---
AD:								
Anklam-----	7s	---	---	---	---	---	---	---
Aladdin-----	6e	---						
BD:								
Berino-----	7e	3e	---	---	---	---	---	---
Dona Ana-----	7e	2e						
Do:								
Deama-----	7e	---	---	---	---	---	---	---
Rock Outcrop-----	8s	---						
DP:								
Dona Ana-----	7e	2e	---	8.00	---	1,300.00	---	16.00
Pajarito-----	7e	2e						
Bluepoint-----	7s	3s						
Du:								
Dune Land-----	8e	---	---	---	---	---	---	---
Dona Ana-----	7e	2e						
Bluepoint-----	7s	3s						
DY:								
Dune Land-----	8e	---	---	---	---	---	---	---
Yesum-----	7e	---						
Gr:								
Gilland-----	6s	---	---	---	---	---	---	---
Rock Outcrop-----	8s	---						

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	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM
Gs: Gypsum Land-----	8s	---	---	---	---	---	---	---
Gu: Gypsum Land-----	8s	---	---	---	---	---	---	---
Gv: Gypsum Rock Land-----	8s	---	---	---	---	---	---	---
Tanbark-----	7s	---						
InT: Intermittent Lakes-----	---	---						
LA: La Fonda-----	6c	---						
La Fonda-----	6c	---						
Lf: Lava Flows-----	8s	---						
Lr: Lozier-----	7s	---						
Rock Outcrop-----	8s	---						
MA: Marcial-----	7s	---						
Ubar-----	7s	2s						
Me: Mead-----	7w	---						
MG: Mimbres-----	7c	3e		9.00		1,750.00		
Glendale-----	7c	1						

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	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM
NT:								
Nickel-----	7s	---	---	---	---	---	---	---
Tencee-----	7e	---						
OB:								
Onite-----	7c	---	---	---	---	---	---	---
Bluepoint-----	7s	3s						
Wink-----	7e	---						
Os:								
Oscura-----	6c	---	---	---	---	---	---	---
RK:								
Rockland Cool-----	8s	---	---	---	---	---	---	---
Rubble Land-----	8s	---						
Deama-----	7e	---						
RL:								
Rock Land-----	8s	---	---	---	---	---	---	---
Rubble Land-----	8s	---						
Lozier-----	7s	---						
SH:								
Shale Rock Land-----	8s	---	---	---	---	---	---	---
Rubble Land-----	8s	---						
Deama-----	7e	---						
SP:								
Sonoita-----	6s	---	---	---	---	---	---	---
Pinaleno-----	7s	---						
Aladdin-----	6e	---						

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	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM
SR:								
Sotim-----	7e	---	---	---	---	---	---	---
Russler-----	7c	---						
TC:								
Tencee-----	7e	---	---	---	---	---	---	---
Nickel-----	7s	---						
TK:								
Tencee-----	7e	---	---	---	---	---	---	---
Nickel-----	7s	---						
Ye:								
Yesum-----	7e	---	---	---	---	---	---	---
YH:								
Yesum-----	7e	---	---	---	---	---	---	---
Holloman-----	7s	---						
Gypsum Land-----	8s	---						

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are presented in the following table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

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	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM

Continued:

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, or green manure crops; and harvesting that insures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Land Capability Classification

The land capability classification system is used to show, in a general way, the suitability of soils for cropland. It is a three-category interpretative system. The two highest categories, class and subclass, give broad perspective of the suitability of map units for certain crops or pasture. These categories indicate the degree and kinds of limitations for these uses. The system evaluates soils for mechanized farming systems that produce the more common cultivated field crops, such as corn, small grains, cotton, hay, and field grown vegetables.

Capability Class

The highest category of the system is the capability class. The capability classes are groups of soils that have the same general suitability for the broad kinds of use common on farms and ranches. There are eight classes designated by Roman numerals I through VIII.

Classes I, II, III, and IV are suitable for mechanized production of common field crops if properly managed, and for production of pasture and woodland. The degree of limitation for production of cultivated crops increases progressively for class I to class IV. Limitations may affect production as well as the risk of permanent soil deterioration, as by erosion.

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	N	I	N Tons	I Tons	N Lbs	I Lbs	N AUM	I AUM

Continued:

Classes V, VI, and VII are generally not suited to mechanized production of common field crops without special management, but are suitable for permanent cover such as grasses and trees. The severity of the soil limitations for crops increases from class V to class VII. Areas in class VIII are generally not suitable for crops, pasture, or wood products without management that is impractical. Class VIII areas may have potential for other uses, such as recreation or wildlife habitat.

Capability Subclass

The subclass identifies the dominant kind of limitation in the 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 a close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by w, s, or c.

Capability Unit

The lowest category of the capability system is the capability unit. Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Units are designated by Arabic numerals, for example IIe-2. This category is not used in all soil surveys.

Pasture and Hayland Interpretations

This subsection provides information concerning the suitability of soils for the production of pasture and hayland. This subsection may contain pasture and hayland suitability groupings, land capability and yield estimates, yield estimates for individual grasses or legumes, or other information pertaining to the production of forage.

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	N	I	N	I	N	I	N	I
			Tons	Tons	Lbs	Lbs	AUM	AUM

Continued:

Pasture and Hayland Suitability Groupings

Soils are placed in pasture and hayland groups according to their suitability for the production of forage. The soils in each group are enough alike to be suited to the same grasses or legumes, to have similar limitations and hazards, to require similar management, and to have similar productivity and other responses to management. Thus, the pasture and hayland suitability group is a convenient way of grouping the soils for their management. If used, these groupings are identified and described in this subsection.

Yield Estimates

The average yields per acre that can be expected of the principal pasture or hayland crops, under a high level of management, are presented in this subsection. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall or other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

Under good management, proper grazing is essential for the production of high quality forage, stand survival, and erosion control. Proper grazing helps plants maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation are also important management practices.

Yield estimates are often provided in animal unit months (AUM) or the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or 5 goats) for 30 days.