

Cropland Interpretations

Crop Yield

The average yields per acre of principal crops under a high level of management are presented in published soil surveys. In any given year, yields may be higher or lower than those indicated in these tables 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.

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. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Productivity Index

The productivity index rating system provides an index for ranking all the soil mapping units in Missouri based upon their suitability to produce crops. An individual productivity index rating for a soil map unit reflects the integrated effects of numerous factors that influence the yield potential.

Many users consider the comparative yields between soils to be of more value than the actual yields because the index relationships are likely to remain constant over a period of years.

This subsection includes:

- **(a) Land Capability and Yields per Acre of Crop and Pasture**
- **(b) Productivity of Missouri Soil (located in the county office)**

Land Capability and Yields per Acre of Crops and Pasture

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

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Grain sorghum	Orchard- grass-red clover hay	Soybeans	Tall fescue	Winter wheat
		Tons	Bu	Bu	Tons	Bu	AUM*	Bu
50000: Adco-----	2e	3.0	110.0	78.0	3.5	40.0	6.3	48.0
50001: Armstrong----	3e	3.0	85.0	78.0	2.8	31.0	6.2	34.0
50002: Keswick-----	3e	3.0	85.0	75.0	2.8	31.0	6.2	34.0
Urban land.								
50003: Mexico-----	2e	4.0	93.0	87.0	3.0	35.0	5.0	50.0
50004: Mexico-----	3e	4.0	93.0	87.0	3.0	35.0	5.0	50.0
50005: Mexico-----	2e	4.0	90.0	87.0	3.0	30.0	5.0	50.0
Urban land.								
50006: Vanmeter-----	6e	2.6	---	---	2.1	---	3.5	---
50007: Vanmeter-----	7e	---	---	---	2.0	---	3.0	---
50008: Keswick-----	3e	3.4	85.0	72.0	2.7	31.0	6.2	34.0
50009: Keswick-----	4e	3.0	70.0	59.0	2.2	25.0	5.0	27.0
50010: Winnegan-----	6e	2.9	---	---	2.3	---	3.5	---
50011: Winnegan-----	7e	---	---	---	---	---	3.3	---
50012: Putnam-----	2w	---	96.0	85.0	3.4	38.0	7.2	45.0
60003: Menfro-----	3e	4.0	95.0	84.0	3.6	36.0	7.0	39.0
60008: Menfro-----	6e	---	---	---	---	---	5.1	---
60009: Clinkenbeard--	7e	---	---	---	---	---	3.1	---
Gasconade-----	7e	---	---	---	---	---	2.6	---
Rock outcrop.								

See footnote at end of table.

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Grain sorghum	Orchard- grass-red clover hay	Soybeans	Tall fescue	Winter wheat
		Tons	Bu	Bu	Tons	Bu	AUM*	Bu
60010: Arisburg-----	2e	4.2	96.0	90.0	3.8	36.0	6.5	40.0
60011: Arisburg-----	2e	4.1	94.0	88.0	3.7	35.0	6.4	39.0
60012: Bardley-----	7e	---	---	---	---	---	3.0	---
Clinkenbeard--	7e	---	---	---	---	---	3.1	---
60019: Hatton-----	3e	3.1	82.0	80.0	2.8	35.0	7.4	50.0
60020: Lenzburg-----	4e	2.9	73.0	75.0	2.6	22.0	5.0	24.0
60021: Lenzburg-----	7e	---	---	---	---	---	4.4	---
60022: Leonard-----	3e	---	80.0	70.0	2.6	30.0	7.2	32.0
60023: Marion-----	3e	3.6	85.0	75.0	3.2	32.0	4.8	34.0
60024: Menfro-----	3e	4.4	106.0	93.0	3.8	40.0	7.0	44.0
60025: Urban land. Harvester-----	7s	---	---	---	---	---	---	---
60026: Weller-----	3e	3.6	94.0	83.0	3.4	35.0	5.3	38.0
60027: Weller-----	3e	3.6	94.0	83.0	3.4	35.0	5.3	38.0
60028: Weller-----	3e	3.3	85.0	73.0	3.0	31.0	6.0	34.0
60029: Weller-----	3e	3.3	85.0	73.0	3.0	31.0	6.0	34.0
Urban land.								
60030: Winfield-----	3e	4.2	108.0	94.0	3.7	40.0	7.5	44.0
60031: Winfield-----	3e	4.2	88.0	80.0	3.7	34.0	7.0	37.0
60032: Winfield-----	6e	3.2	---	---	2.9	---	5.6	---
60033: Wrengart-----	3e	3.0	86.0	75.0	2.8	32.0	4.2	36.0

See footnote at end of table.

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Grain sorghum	Orchard- grass-red clover hay	Soybeans	Tall fescue	Winter wheat
		Tons	Bu	Bu	Tons	Bu	AUM*	Bu
60034: Wrengart-----	4e	2.8	70.0	60.0	2.6	26.0	3.7	28.0
60035: Wrengart-----	4e	2.6	70.0	60.0	2.4	26.0	3.7	28.0
Urban land.								
60036: Menfro-----	4e	4.0	74.0	65.0	3.6	27.0	5.6	30.0
60037: Wrengart-----	4e	2.6	70.0	60.0	2.3	26.0	3.7	28.0
60038: Rocheport-----	6e	2.4	---	---	2.1	---	3.3	---
Bondefemme----	6e	2.3	---	---	2.0	---	3.2	---
60039: Rocheport-----	7e	---	---	---	---	---	2.9	---
Bondefemme----	7e	---	---	---	---	---	2.8	---
64002: Freeburg-----	3e	4.1	110.0	95.0	3.8	40.0	7.0	44.0
64004: Auxvasse-----	3w	---	88.0	80.0	2.6	34.0	7.0	37.0
64005: Moniteau-----	3w	---	101.0	88.0	2.7	37.0	7.4	41.0
64006: Tanglenook----	3w	---	102.0	89.0	3.8	37.0	7.3	41.0
66007: Leta-----	2w	---	100.0	88.0	2.7	38.0	7.3	42.0
66014: Haymond-----	2w	---	110.0	90.0	3.6	39.0	8.0	42.0
66015: Blake-----	2w	---	132.0	110.0	4.0	44.0	8.3	46.0
66016: Blake-----	2w	---	132.0	110.0	4.0	44.0	8.3	46.0
66017: Cedargap-----	3w	---	72.0	58.0	2.7	25.0	6.5	30.0
Dameron-----	2w	---	80.0	70.0	3.2	30.0	7.0	40.0
66018: Darwin-----	3w	2.4	87.0	75.0	2.6	31.0	4.8	35.0
66019: Haynie-----	2w	3.1	114.0	98.0	3.7	41.0	7.0	46.0

See footnote at end of table.

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Grain sorghum	Orchard- grass-red clover hay	Soybeans	Tall fescue	Winter wheat
		Tons	Bu	Bu	Tons	Bu	AUM*	Bu
66020: Haynie-----	3w	---	108.0	96.0	3.5	34.0	6.8	41.0
66021: Perche-----	2w	---	105.0	95.0	3.4	35.0	7.0	42.0
66022: Sandover-----	2w	---	85.0	75.0	3.1	30.0	6.5	35.0
66023: Sarpy-----	4s	1.2	47.0	39.0	1.0	17.0	2.3	17.0
66024: Wilbur-----	2w	---	115.0	95.0	3.7	40.0	7.8	45.0
66025: Jemerson-----	1	4.9	136.0	118.0	4.0	50.0	8.6	59.0
99000: Pits-----	8s	---	---	---	---	---	---	---
99001: Water.								
99003: Miscellaneous water.								

* Animal unit month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Pasture and Hayland Suitability Groups

(See text for descriptions of the groups listed in this table.)

Map symbol	Map unit name	Component name	Pasture and hayland group
50000	Adco silt loam, 0 to 2 percent slopes-----	Adco	CyU
50001	Armstrong loam, 5 to 9 percent slopes, eroded-----	Armstrong	CyU
50002	Keswick-Urban land complex, 5 to 9 percent slopes-----	Keswick Urban land	CyU ---
50003	Mexico silt loam, 1 to 3 percent slopes-----	Mexico	CyU
50004	Mexico silt loam, 1 to 3 percent slopes, eroded-----	Mexico	CyU
50005	Mexico-Urban land complex, 1 to 3 percent slopes-----	Mexico Urban land	CyU ---
50006	Vanmeter clay loam, 5 to 14 percent slopes-----	Vanmeter	MDU
50007	Vanmeter silty clay, 14 to 40 percent slopes-----	Vanmeter	MDU
50008	Keswick silt loam, 5 to 9 percent slopes, eroded-----	Keswick	CyU
50009	Keswick silt loam, 9 to 14 percent slopes, eroded-----	Keswick	CyU
50010	Winnegan loam, 14 to 20 percent slopes, eroded-----	Winnegan	CyU
50011	Winnegan loam, 20 to 35 percent slopes-----	Winnegan	CyU
50012	Putnam silt loam, 0 to 1 percent slopes-----	Putnam	WCU
60003	Menfro silt loam, 9 to 14 percent slopes, eroded-----	Menfro	LyU
60008	Menfro silt loam, 20 to 45 percent slopes-----	Menfro	LyU
60009	Clinkenbeard-Gasconade-Rock outcrop complex, 35 to 70 percent slopes, extremely stony-----	Clinkenbeard Gasconade Rock outcrop	GNS GNS ---
60010	Arisburg silt loam, 1 to 3 percent slopes-----	Arisburg	CyU
60011	Arisburg silt loam, 3 to 6 percent slopes, eroded-----	Arisburg	CyU
60012	Bardley-Clinkenbeard complex, 20 to 45 percent slopes, very stony-----	Bardley Clinkenbeard	MDU MDU
60019	Hatton silt loam, 2 to 5 percent slopes, eroded-----	Hatton	LyP
60020	Lenzburg silty clay loam, 2 to 9 percent slopes-----	Lenzburg	LyU
60021	Lenzburg channery silty clay loam, 9 to 70 percent slopes-----	Lenzburg	GrU
60022	Leonard silt loam, 2 to 6 percent slopes, eroded-----	Leonard	WCU
60023	Marion silt loam, 1 to 3 percent slopes-----	Marion	WCU
60024	Menfro silt loam, 3 to 9 percent slopes, eroded-----	Menfro	LyU
60025	Urban land-Harvester complex, 2 to 9 percent slopes-----	Urban land Harvester	--- LyU
60026	Weller silt loam, bench, 2 to 5 percent slopes-----	Weller	CyU
60027	Weller silt loam, 2 to 5 percent slopes, eroded-----	Weller	CyU
60028	Weller silt loam, 5 to 9 percent slopes, eroded-----	Weller	CyU
60029	Weller-Urban land complex, 2 to 9 percent slopes-----	Weller Urban land	CyU ---
60030	Winfield silt loam, 5 to 9 percent slopes-----	Winfield	LyU
60031	Winfield silt loam, 9 to 14 percent slopes, eroded-----	Winfield	LyU
60032	Winfield silt loam, karst, 14 to 45 percent slopes-----	Winfield	LyU
60033	Wrengart silt loam, 5 to 9 percent slopes, eroded-----	Wrengart	LyP
60034	Wrengart silty clay loam, karst, 5 to 14 percent slopes, eroded-----	Wrengart	LyP
60035	Wrengart-Urban land complex, 9 to 14 percent slopes-----	Wrengart Urban land	LyP ---
60036	Menfro silt loam, 14 to 20 percent slopes, eroded-----	Menfro	LyU
60037	Wrengart silt loam, 9 to 14 percent slopes-----	Wrengart	LyP
60038	Rocheport-Bonnefemme complex, 14 to 25 percent slopes-----	Rocheport Bonnefemme	LyU MDU
60039	Rocheport-Bonnefemme complex, 25 to 40 percent slopes-----	Rocheport Bonnefemme	LyU MDU
64002	Freeburg silt loam, 2 to 5 percent slopes-----	Freeburg	WLO
64004	Auxvasse silt loam, 0 to 2 percent slopes, rarely flooded-----	Auxvasse	WCB
64005	Moniteau silt loam, 0 to 3 percent slopes, occasionally flooded-----	Moniteau	WLB
64006	Tanglenook silt loam, 1 to 3 percent slopes, rarely flooded-----	Tanglenook	WCB
66007	Leta silty clay, 0 to 2 percent slopes, occasionally flooded-----	Leta	WCB
66014	Haymond silt loam, 0 to 3 percent slopes, frequently flooded-----	Haymond	LyO
66015	Blake silt loam, 0 to 2 percent slopes, occasionally flooded-----	Blake	WLO
66016	Blake silty clay loam, 0 to 2 percent slopes, frequently flooded-----	Blake	WLO

Pasture and Hayland Suitability Groups--Continued

Map symbol	Map unit name	Component name	Pasture and hayland group
66017	Cedargap-Dameron complex, 0 to 2 percent slopes, frequently flooded-----	Cedargap	GrO
		Dameron	LyO
66018	Darwin silty clay loam, 0 to 2 percent slopes, occasionally flooded-----	Darwin	WCB
66019	Haynie loam, 0 to 2 percent slopes, occasionally flooded-----	Haynie	WLO
66020	Haynie silt loam, 0 to 2 percent slopes, frequently flooded-----	Haynie	WLO
66021	Perche loam, 0 to 2 percent slopes, frequently flooded-----	Perche	WLO
66022	Sandover sand, 0 to 2 percent slopes, occasionally flooded-----	Sandover	WLO
66023	Sarpy fine sand, 0 to 2 percent slopes, occasionally flooded-----	Sarpy	SyO
66024	Wilbur silt loam, 0 to 2 percent slopes, frequently flooded-----	Wilbur	WLO
66025	Jemerson silt loam, 0 to 3 percent slopes, rarely flooded-----	Jemerson	LyO
99000	Pits, quarries-----	Pits	---
99001	Water-----	Water	---
99003	Miscellaneous water-----	Miscellaneous water	---