

Forestland Interpretations

Forestland interpretations are important to good management. The management of trees begins with an understanding of the soil where they grow or are to be grown. Some soils are very suitable for growing wood crops; others barely support tree cover. Different tree species may vary in production on the same soil.

Forestland interpretations should be used to assist land users in planning, installing, and maintaining forestland management systems.

Forest Management and Productivity

The Forestland Management and Productivity tables presents information about suitable for producing timber for each soil map unit. Management concerns, which include hazard of erosion, equipment use, seedling mortality, and windthrow hazard, are listed by ratings of SLIGHT, MODERATE, or SEVERE. Information on potential productivity includes plant competition, common trees, site index, productivity class, and trees to plant.

Management Concerns

EROSION HAZARD - the risk of erosion is slight if the expected soil loss is small; moderate if some measures are needed to control erosion during logging; and severe if intensive management or special equipment and methods are needed to prevent excessive loss of soil.

EQUIPMENT LIMITATION - A rating of slight indicates that use of equipment is not limited to a particular kind of equipment or time of year; moderate indicates a short seasonal limitation, or a need for some modification in management of equipment; and severe indicates a seasonal limitation, a need for special equipment or management, or a hazard in the use of equipment.

SEEDLING MORTALITY - The ratings are for seedlings from a good planting stock that are properly planted during a period of sufficient rainfall. A rating of slight indicates that the expected mortality of the planted seedlings is less than 25 percent; moderate - 25 to 50 percent; and severe - more than 50 percent.

WINDTHROW HAZARD - A rating of slight indicates that trees in wooded areas are not expected to be blown down by commonly occurring winds; moderate - that some trees are blown down during periods of excessive soil wetness and strong winds; and severe that many trees are blown down during periods of excessive soil wetness and moderate or strong winds.

PLANT COMPETITION - A rating of slight indicates little or no competition from other plants; moderate indicates that plant competition is expected to hinder the development of the fully stocked stand of desirable trees; and severe means that plant

competition is expected to prevent the establishment of a desirable stand unless the site is intensively prepared, weeded, or otherwise managed for the control of undesirable plants.

POTENTIAL PRODUCTIVITY - This is discussed under the ordination class symbol.

COMMON TREES - Trees that generally occur on the soil are listed regardless of economic importance.

SITE INDEX AND PRODUCTIVITY CLASS - These are discussed under ordination class symbol.

TREES TO PLANT - Trees that are suitable for commercial wood production and that are adapted to the soil.

See the National Forestry Manual, Subpart B for criteria used in rating management concerns.

This subsection includes:

- **(a) Forest Management (one or two tables)**

Callaway County, Missouri
 Forest Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
9C2: Armster-----	pin oak-----	70	57	black oak, northern red oak, pin oak, white ash, white oak
9D2: Armster-----	pin oak-----	70	57	black oak, northern red oak, pin oak, white ash, white oak
10C2: Armstrong-----	northern red oak----	55	38	eastern white pine, red pine
	white oak-----	55	38	
10D2: Armstrong-----	northern red oak----	55	38	eastern white pine, red pine
	white oak-----	55	38	
13A: Auxvasse-----	green ash-----	---	0	eastern cottonwood, green ash, pin oak, silver maple, sweetgum, white oak
	pin oak-----	76	58	
	silver maple-----	---	0	
15B: Calwoods-----	white oak-----	55	38	black oak, pin oak, white ash, white oak

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 Forest Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
15B2: Calwoods-----	white oak-----	55	38	black oak, pin oak, white ash, white oak
16C2: Crider-----	black oak-----	---	0	black walnut, eastern white pine, white ash
	northern red oak----	70	52	
	white oak-----	66	48	
16D2: Crider-----	black oak-----	---	0	black walnut, eastern white pine, white ash
	northern red oak----	70	52	
	white oak-----	66	48	
18F: Goss-----	black oak-----	---	0	white ash, white oak
	blackjack oak-----	---	0	
	post oak-----	---	0	
	white oak-----	60	43	
Gasconade-----	blackjack oak-----	---	0	---
	chinkapin oak-----	40	26	
	eastern redcedar----	30	32	
	hickory-----	---	---	
	post oak-----	---	0	
	sugar maple-----	---	---	
	white ash-----	---	---	
Rock outcrop-----	---	---	---	---

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 Forest Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
19C: Gorin-----	white oak-----	55	38	black oak, pin oak, white ash, white oak
19C2: Gorin-----	white oak-----	55	38	black oak, pin oak, white ash, white oak
20D: Goss-----	black oak----- blackjack oak----- post oak----- white oak-----	--- --- --- 60	--- --- --- 43	---
21C: Hatton-----	white oak-----	56	39	black oak, white ash, white oak
21C2: Hatton-----	white oak-----	56	39	black oak, white ash, white oak
22C2: Keswick-----	northern red oak---- white oak-----	55 55	38 38	eastern white pine, northern red oak, sugar maple

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
22D2: Keswick-----	northern red oak---- white oak-----	55 55	38 38	eastern white pine, northern red oak, sugar maple
24D: Lindley-----	black oak----- blackjack oak----- post oak----- white oak-----	--- --- --- 60	--- --- --- 43	black oak, northern red oak, white ash, white oak
24D2: Lindley-----	black oak----- blackjack oak----- post oak----- white oak-----	--- --- --- 60	--- --- --- 43	black oak, northern red oak, white ash, white oak
24F: Lindley-----	black oak----- blackjack oak----- northern red oak---- post oak----- white oak-----	--- --- --- --- 60	--- --- --- --- 43	black oak, northern red oak, white ash, white oak
25: Marion-----	post oak----- white oak-----	--- 50	0 34	pin oak, white ash, white oak
27B: Mexico-----	---	---	---	---

Callaway County, Missouri
 Forest Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
27B2: Mexico-----	---	---	---	---
28A: Moniteau-----	pin oak-----	70	52	eastern cottonwood, pin oak, silver maple, white ash, white oak
29: Landes-----	American sycamore--- eastern cottonwood-- green ash-----	--- 105 ---	0 141 0	American sycamore, black walnut, eastern cottonwood, green ash, yellow poplar
31: Haymond-----	black walnut----- eastern cottonwood-- white oak-----	70 100 90	0 128 72	black walnut, eastern white pine, white oak
32: Cedargap-----	black oak-----	66	48	black oak
33: Belknap-----	American sycamore--- eastern cottonwood-- pin oak-----	--- 100 90	0 128 72	American sycamore, eastern cottonwood
34: Putnam-----	---	---	---	---

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
35C2: Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	
35D2: Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	
35E2: Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	
35F2: Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
37C2: Menfro-----	black oak-----	73	48	black walnut,
	northern red oak----	75	48	eastern white
	sugar maple-----	68	48	pine, white ash,
	white ash-----	70	48	white oak, yellow
	white oak-----	65	48	poplar
37D2: Menfro-----	black oak-----	73	48	black walnut,
	northern red oak----	75	48	eastern white
	sugar maple-----	68	48	pine, white ash,
	white ash-----	70	48	white oak, yellow
	white oak-----	65	48	poplar
37E2: Menfro-----	black oak-----	73	55	black walnut,
	northern red oak----	75	57	eastern white
	sugar maple-----	68	43	pine, white ash,
	white ash-----	70	66	white oak, yellow
	white oak-----	65	48	poplar
37F2: Menfro-----	black oak-----	73	55	black walnut,
	northern red oak----	75	57	eastern white
	sugar maple-----	68	43	pine, white ash,
	white ash-----	70	66	white oak, yellow
	white oak-----	65	48	poplar
39: Hodge-----	eastern cottonwood--	120	186	eastern cottonwood,
	silver maple-----	105	56	green ash, silver maple

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
40: Grable-----	---	---	---	---
41: Leta-----	black willow----- eastern cottonwood-- silver maple-----	--- 90 85	0 103 38	eastern cottonwood, green ash, pecan, silver maple
42: Waldron-----	eastern cottonwood-- pin oak-----	110 80	156 62	eastern cottonwood, green ash, pecan, pin oak, silver maple
43: Booker-----	eastern cottonwood-- silver maple-----	85 80	91 34	eastern cottonwood, green ash, pecan, pin oak, silver maple
44: Dupo-----	---	---	---	---
45C: Freeburg-----	white oak-----	65	48	black oak, eastern cottonwood, white ash, white oak, yellow poplar

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 Forest Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
49D: Armster-----	pin oak-----	70	52	black oak, northern red oak, white ash, white oak
49F: Armster-----	pin oak-----	70	52	black oak, northern red oak, white ash, white oak
56B: Weller-----	white oak-----	55	38	black oak, eastern white pine
56C2: Weller-----	white oak-----	55	38	black oak, eastern white pine
56D2: Weller-----	white oak-----	55	38	black oak, eastern white pine
60D2: Weingarten-----	black oak-----	---	0	black oak, northern
	northern red oak----	70	38	red oak, yellow
	white oak-----	66	48	poplar

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
64F:				
Lily-----	black oak-----	58	41	black oak, northern red oak, white ash
	northern red oak----	54	38	
	post oak-----	---	0	
	white ash-----	---	0	
	white oak-----	---	0	
Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	
Rock outcrop-----	---	---	---	---
73F:				
Gosport-----	white oak-----	45	38	black oak, eastern white pine
74D2:				
Snead-----	northern red oak----	62	45	northern red oak, white ash
	sugar maple-----	---	0	
	white ash-----	56	44	
	white oak-----	55	38	
80C:				
Winfield-----	black oak-----	65	48	black oak, eastern white pine, northern red oak, white ash, yellow poplar
	northern red oak----	60	48	
	white oak-----	65	48	

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Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
83C: Weller-----	white oak-----	55	38	black walnut, eastern white pine
87B: Wiota-----	---	---	---	---
98F: Bethesda-----	---	---	---	eastern cottonwood, eastern white pine, river birch
Dumps-----	---	---	---	---
99: Pits-----	---	---	---	---
100: Orthents, landfill-----	---	---	---	---
101: Orthents, dam-----	---	---	---	---
M-W: Water-----	---	---	---	---
W: Water-----	---	---	---	---