



Nutrient Needs of: Bermudagrass, Old World Bluestem, Weeping Lovegrass, and Cool Season Forages

Pete's Sheets

Oklahoma State University, Department of Plant and Soil Sciences
Oklahoma Cooperative Extension Service

Nitrogen: The N recommendation is the total amount needed for the entire growing season, based on yield goal, (5 year field avg.) plus 20%. Subtract residual N reported in soil test from N rate suggested for the yield goal you have chosen.

Phosphorus and Potassium: Both P and K are based on a sufficiency level. Soil tests report P and K values as soil test index. The P and K tables show the corresponding percent sufficiency and recommend the fertilizer rate in pounds of P₂O₅ and K₂O /ac.

Websites of interest: soiltesting.okstate.edu forage.okstate.edu
PSS.okstate.edu nue.okstate.edu npk.okstate.edu

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Nitrogen

Yld Goal ton/ac	N Need lbs N/ac			
	Bermuda- grass	Old World Bluestem	Weeping Lovegrass	Cool Season (fescue, rye)
1	50	35	35	60
2	100	70	70	120
3	150	110	110	180
4	200	150	160	240
5	260	200	220	300
6	320			
7	400			

Bermudagrass (BG) Old World Bluestem (OW), Weeping Lovegrass (WL)
Cool Season grasses: Fescue, Rye, Orchardgrass (CS),

Phosphorus

Soil Test P	BG		OW&WL		CS	
	%	P ₂ O ₅	%	P ₂ O ₅	%	P ₂ O ₅
	Suf	lb/ac	Suf	lb/ac	Suf	lb/ac
0	50	75	50	60	30	80
10	65	60	70	40	50	60
20	80	40	85	30	70	40
40	95	20	95	20	95	20
>65	100	0	100	0	100	0

Potassium

Soil Test K	BG		OW&WL		CS	
	%	K ₂ O	%	K ₂ O	%	K ₂ O
	Suf	lb/ac	Suf	lb/ac	Suf	lb/ac
0	50	140	40	80	60	80
75	65	80	65	60	70	60
125	80	50	80	40	80	40
200	95	30	95	20	95	20
>250	100	0	100	0	100	0

Forage	pH Range
Fescue, OW, WL	4.5-7.0
Orchard, Rye	5.5-7.0
Bermudagrass	5.7-7.0

The pH range is the soil pH that crops prefer, lime should be applied if soil pH is below this range.(PSS-2229)