

**TABLE 5. Plant Nutrient Recommendations Based on Soil Tests and Yield Goals for Establishment of Hay, Pasture, and Silage Crops.**

Crop: <b>NEWLY SEEDED</b>	Total Amount of Nutrients Recommended and Suggested Method of Application	Nitrogen (N)	Recommended Nutrients Based on Soil Tests							
			Soil Test Phosphorus Category				Soil Test Potassium Category			
			Low	Medium	Optimum	Excessive	Low	Medium	Optimum	Excessive
		lbs N / A	lbs P205 / A				lbs K20 / A			
<b>ALFALFA &amp; ALFALFA-GRASS MIX</b>										
A. Spring seeded	Broadcast and disk in	15-30 *	110-205	70-110	20-70	0	185-295	115-185	20-115	0
B. Fall seeded	Total recommended	15-30 *	155-280	100-155	60-100	0	205-300	140-205	80-140	0
	Broadcast and disk in	15-30 *	60	60	60	0	60	60	60	0
	Topdress following spring	0	95-220	40-95	20-40	0	145-240	80-145	20-80	0
<b>CLOVER, CLOVER-GRASS MIX, HAIRY VETCH, BIRDSFOOT TREFOIL</b>	Broadcast and disk in	15-30	60-100	40-60	20-40	0	60-100	40-60	20-40	0
<b>LESPEDEZA, LESPEDEZA-GRASS MIX</b>	Broadcast and disk in	15-20	35-60	20-35	20	0	40-65	25-40	25	0
<b>COOL SEASON PERENNIAL GRASSES **</b>	Broadcast and disk in	40-60	60-100	40-60	20-40	0	60-100	40-60	20-40	0
<b>WARM SEASON PERENNIAL GRASSES ***</b>	Broadcast and disk in	0	40-60	20-40	0	0	60-90	20-60	0	0
<b>BUCKWHEAT</b>	Broadcast and disk in	15-20	30-50	20-30	20	0	30-50	20-30	20	0

Where ranges of nutrients are indicated for phosphorus and potassium, the precise amount of plant nutrient required depends upon the numerical soil test index value for that nutrient. Nutrient recommendations for most forages were developed for hay production systems. Where no grazing designation for a crop is given, pasture-based producers may modify the timing and rate of nutrient applications as long 1) the total annual application rate does not exceed the total annual recommendation for each nutrient, and 2) nutrient application timing complies with "Nutrient Application Guidelines," Section I-D, of this manual.

\* Organic waste nitrogen application for alfalfa establishment in excess of 30 lb / A of plant available nitrogen is not recommended due to inhibition of nodulation.

\*\* Cool Season Perennial Grasses: orchardgrass, timothy, bromegrass, tall fescue, reed canarygrass, annual ryegrass, perennial ryegrass.

**Table 6. Plant Nutrient Recommendations Based on Soil Tests and Yield Goals for Maintenance of Hay, Pasture, and Silage Crops.**

Crop	Total Amount of Nutrients Recommended and Suggested Method of Application	Nitrogen (N)  lbs N / A	Recommended Nutrients Based on Soil Tests							
			Soil Test Phosphorus Category				Soil Test Potassium Category			
			Low	Medium	Optimum	Excessive	Low	Medium	Optimum	Excessive
<b>ALFALFA &amp; ALFALFA-GRASS MIX</b> (more than 25% alfalfa)			lbs P205 / A				lbs K20 / A			
A. Yield goal: 4 tons / A	Topdress annually	0*	60-100	30-60	20-30	0	190-275	140-190	90-140	90
B. Yield goal: 8 tons / A	Topdress annually	0*	100-120	50-100	20-50	0	470-555	420-470	370-420	370
<b>CLOVER &amp; CLOVER-GRASS MIX</b> (more than 25% clover)			lbs P205 / A				lbs K20 / A			
A. Yield goal: 4 tons / A	Topdress annually	0*	60-100	30-60	20-30	0	190-275	140-190	90-140	90
B. Yield goal: 8 tons / A	Topdress annually	0*	100-120	50-100	20-50	0	470-555	420-470	370-420	370
<b>BIIRDSFOOT TREFOIL</b> (more than 25% trefoil)	Topdress annually	0*	60-100	30-60	20-30	0	125-195	75-125	40-75	40
<b>BLUEGRASS-WHITE CLOVER MIX</b> (more than 25% white clover)	Topdress annually	20-30	50-100	25-50	25	0	50-100	25-50	25	0
<b>BLUEGRASS PASTURE</b> (with little or no clover)	Total recommended	100-120	50-100	25-50	25	0	50-100	25-50	25	0
	Topdress at greenup	50-60	50-100	25-50	25	0	50-100	25-50	25	0
	Topdress mid-late May	25-30	0	0	0	0	0	0	0	0
	Topdress in late summer	25-30	0	0	0	0	0	0	0	0
<b>ORCHARDGRASS and REED CANARY GRASS</b> (less than 25% legumes)	Total recommended	160-200	60-150	20-60	20	0	110-200	50-110	20-50	0
	Topdress at greenup	80-100	30-80	20-60	20	0	60-100	50-60	20-50	0
	Topdress after first harvest	40-50	0	0	0	0	0	0	0	0
Yield goal: 4 tons / A	Topdress in late summer	40-50	30-70	0	0	0	50-100	0-50	0	0
<b>FESCUE</b> (less than 25% legumes).	Total recommended	220-250	60-150	20-60	20	0	110-200	50-110	20-50	0
	Topdress at greenup	100-125	30-80	20-60	20	0	60-100	50-60	20-50	0
	Topdress after first harvest	40-50	0	0	0	0	0	0	0	0
Yield goal: 5 tons / A	Topdress in late summer	60-75	30-70	0	0	0	50-100	0-50	0	0
<b>TIMOTHY, SMOOTH BROMEGRASS and PERENNIAL RYEGRASS</b> Yield goal: 3 tons / A	Total recommended	140-180	60-150	20-60	20	0	110-200	50-110	20-50	0
	Topdress at greenup	60-80	30-80	20-60	20	0	60-100	50-60	20-50	0
	Topdress after first harvest	40-50	0	0	0	0	0	0	0	0
	Topdress in late summer	40-50	30-70	0	0	0	50-100	0-50	0	0
<b>ANNUAL RYEGRASS and/or CEREAL GRAIN FOR GRAZING</b> (established previous fall)	Total recommended	150	0	0	0	0	0	0	0	0
	Topdress at greenup	50	0	0	0	0	0	0	0	0
	Topdress in late April to early May	50	0	0	0	0	0	0	0	0
	Topdress in late May or early June	50	0	0	0	0	0	0	0	0
<b>WARM SEASON PERENNIAL GRASSES**</b> (except Eastern Gammagrass and improved Bermudagrasses)	Total recommended	120	60-90	20-60	0	0	90-120	30-90	20-30	0
	Topdress at greenup	80	60-90	20-60	0	0	90-120	30-90	20-30	0
Yield goal: 4 tons / A	Topdress after first cutting/grazing	40	0	0	0	0	0	0	0	0