DJB 1/2022

NUTRIENT REMOVAL OF VARIOUS CROPS (From Table 6-6, 210-viAWMFH,rev. 1, July 1996)

Actual nutrient application should be based on soil test results and recommendations from qualified individuals.

Be sure to consider the removal rate of nutrients as part of a nutrient management program. In some cases maintenance of soil test levels is desired, others excess nutrients could be "mined". But remember once depleted, significant inputs may be required to build it back. Each soil nutrient must be present at minimum levels for crop growth. A basic soil test (P, K, pH) should be done every 3 years. Organic matter, micro-nutrients and maybe nitrogen should be done for problem solving and high yield situations.

		Yield/Acre		Pounds Removed		
Crop	Dry Wt Lb/Bu	Bushels Grain	Tons Hay, Straw Or Stover 1_/	N	2_/ P_2O_5	3_/ K_2O
Alfalfa			1	45.00	12	60
			4	180	48	240
Bromegrass			1	37.40	12	40
			3	112	36	120
Native Grass			1	25.00	5	30
			3	75	16	90
Corn	60	1		0.966	0.33	0.26
		80		77	26	21
		100		97	33	26
		120		116	40	31
		150		145	50	39
		200		193	66	52
			1	22.20	3	9
			4.5	100	14	39
Oats	32	1		0.624	0.25	0.2
		50		31	13	10
		80		50	20	16
		100		62	25	20
			1	12.60	7	40
Red Clover			1	40	10	40
			2.5	100	25	100
Sorghum	56	1		0.9352	0.4	0.26
		80		75	32	21
		120		112	48	31
			1	21.60	3	9
			5	108	16	44
Soybeans	60	1		3.75	0.80	1.40
		30		113	24	42
		50		188	40	70
			1	45.00	10	25
			2.5	113	25	63
		Lbs/Acre				
Sunflower	25	1		0.036	0.015	0.006
		1000		36	15	6
		1250		45	19	8
Wheat	60	1		1.25	0.50	0.30
		40		50	20	12
		70		87	35	21
			1	13.40	3	23
			1.5	20	5	35

1_/ When harvesting crops that remove both the grain and stover consider the nutrient loss from both. If the field is grazed nutrient loss from the stover may not be an issue since most will be recycled in the animal waste. Also please note that gross tons of harvested silage would be double or triple of dry because it is put up at 60% to 65% moisture.

2_/ Fertilizer nutrient analysis for elemental phosphorus (P) is expressed as P_2O_5.

Pounds P_2O_5 x 0.4364 = P or Pounds P x 2.2914 = P_2O_5

3_/ Fertilizer nutrient analysis for elemental potassium (K) is expressed as K_2O.

Pounds K_20 x 0.8302 = K or Pounds K x 1.2045 = K_2O