

Soil Fertility

Removed

in

Some

Crops

TEXAS AGRICULTURAL EXTENSION SERVICE
G. G. Gibson, Director, College Station, Texas

Amounts of FERTILIZING CONSTITUENTS REMOVED from the Soil
with Each Ton of Commodities Sold*

Commodity	Lb. of nitrogen (N)	Lb. of phosphoric acid (P ₂ O ₅)	Lb. of potash (K ₂ O)	Lb. of lime (CaO)
Feed Crops				
Barley	40	18	13	1.4
Corn	31	13	8	.3
Corn and cob (ground)	26	11	8	.3
Cottonseed	74	25	23.1	5
Flax	75	31	14	7
Hegari	31	8		
Kaffir	36	11	8	
Maize	36	12	9	
Millet	3.9	9	10	.3
Oats	38	15	10	3
Peanuts (with hulls)	80	15	10	.2
Peanuts (hulled)	98	18	13	.2
Wheat	42	20	11	.8
Food Crops				
Cabbage	6	.7	.6	1.4
Potatoes, Irish	7.6	3	12	4
Potatoes, sweet	6	4	14	1
Rice (clean)	27	10	5	.6
Tomatoes	3	.7	7	
Hay				
Alfalfa (hay, average)	47	12	48	40
Alfalfa (hay, leafy)	59	12	63	47
Alfalfa (green)	15	3	14	11
Cowpea (hay)	60	12	35	24
Johnsongrass (hay, young)	44	10	26	17
Johnsongrass (hay, bloom)	25	10	24	16
Johnsongrass (hay, mature)	17	8	22	13
Peanut hay	32	5	35	33
Prairie hay	18	5	29	24
Animal Products				
Cattle	55	32		42
Hogs	91	43		58
Milk	10	4	3	2

*The nutrient composition of these selected crops is calculated from Texas Agricultural Experiment Station Bulletin 461 (Revised).

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The nutrient content of our crops is closely related to soil maintenance.

The table in this leaflet shows approximate composition of certain crops on a ton basis. This amount of plant nutrients is removed from the soil when 1 ton of crops is sold and must be added to the soil in one way or another to maintain soil fertility. The plant nutrients returned to the soil through burning or discarding crop residues are inadequate for maintaining the fertility of the land.

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