

Section 9: Crop Removals

The nutrient content of harvested crops used to calculate nutrient removal from different crops.

Crop	Unit of Yield	P2O5	K2O
Corn	bu.	0.375	0.3
Corn Silage	bu. grain equivalent	0.55	1.25
Soybeans	bu.	0.8	1.5
Alfalfa	ton	12.5	40
Oat and Straw	bu.	0.4	1.0
Wheat	bu.	0.6	0.3
Smooth Bromegrass	ton	9.0	47.0
Orchardgrass	ton	14.0	68.0

Expected Crop Nutrient Removal P₂O₅ / K₂O

Corn			Soybean			Alfalfa		
Yield	P ₂ O ₅	K ₂ O	Yield	P ₂ O ₅	K ₂ O	Tonnage	P ₂ O ₅	K ₂ O
100	38	30	25	20	38	2.0	25	80
110	41	33	30	24	45	2.5	31	100
120	45	36	35	28	53	3.0	37	120
130	49	39	40	32	60	3.5	43	140
140	53	42	45	36	68	4.0	50	160
150	56	45	50	40	75	4.5	56	180
160	60	48	55	44	83	5.0	62	200
170	64	51	60	48	90	5.5	68	220
180	68	54	65	52	98	6.0	75	240
190	71	57	70	56	105	6.5	81	260
200	75	60	75	60	113	7.0	87	280
210	79	63	80	64	120	7.5	93	300
220	83	66	85	68	128	8.0	100	320
230	86	69	90	72	135	8.5	106	340
240	90	72	95	76	143	9.0	112	360
250	94	75	100	80	150	9.5	118	380

Values based on Iowa State University Recommendations