

Table 2. Adequate P and K interact to boost soybean yields.

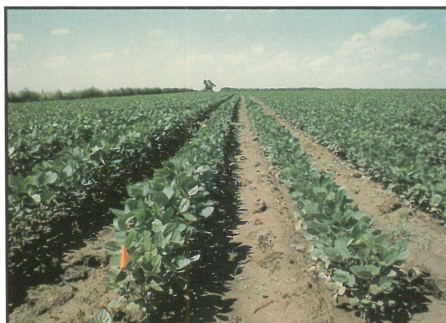
P ₂ O ₅ lb/A ¹	K ₂ O lb/A ¹	1992 Yield, bu/A	5-year avg., bu/A
0	0	65	66
0	60	68	67
30	0	69	67
30	60	81	69
60	0	76	68
60	60	80	69

¹P₂O₅ and K₂O for corn prior to soybeans. Kansas

potential weed problems. Scouting for a soybean crop begins during the growth of the preceding crop. Identify problem weeds and problem areas and begin planning for control in the future. Good management practices for all the other inputs go a long way in reducing the pressure from weed competition.

Summary

This highlights full-season soybean “better management thinking” for several controllable inputs. Expand the list to



PHOSPHORUS response in soybeans.

include tillage practices, planting depth, population, harvest management, soil acidity control, secondary nutrient needs, micronutrients, insect and disease pests and all the other inputs over which you have some control. Then integrate these into a new soybean production package. That’s the kind of thinking that raises yield levels and profit potentials. If BMT works for you, then try it for other crops in the rotation. ■

Table 3. Control weeds for better soybean yields.

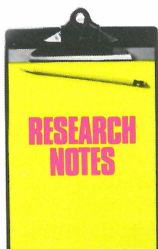
Problem weed or grass	Plants per foot of row	Yield reduction		Income loss \$/A
		%	bu/A	
Giant foxtail	6	10	4	28.00
Fall Panicum	1	20	8	56.00
Pigweed	0.25	30	12	84.00
Morningglory	1	52	20.8	145.60
Cocklebur	1	10	4	28.00
	2	28	11.2	78.40
	3.50	43	17.2	120.40

Assume 40 bu/A yield and \$7.00/bu soybean price

Illinois

Oregon

The Influence of Tillage and Cropping Intensity on Cereal Response to Nitrogen, Sulphur and Phosphorus



IN THIS 6-year study, cereal responses to nitrogen (N), sulphur (S) and phosphorus (P) were determined under conventional-till (CT) and no-till (NT) for cereal/fallow and cereal/cereal. Semi-dwarf white winter wheat was alternated annually with either fallow or spring cereal (barley or wheat). Fertilizer treatments were none, N, NS and NP.

The cereals showed a strong response to fertilization, averaging 16.5, 13.8 and 7.0 bu/A, for N, S and P, respectively. Both N and S were more deficient in NT and when soils were cropped annually than was P.

Adequate fertility was a prime prerequisite for efficient yields for CT, NT and crop rotation, but was most critical with NT and the cereal/cereal rotation. ■

Source: P. E. Rasmussen and C. L. Douglas, Jr. 1992. Fertilizer Research 31:15-19.