On the low productivity soil, atrazine loss in runoff, with sediment and in percolate as predicted by GLEAMS was the lowest when the farm participated in the government program (Table 5). In addition, all three types of alachlor loss also were minimized in the government program case. Corn herbicide losses were smallest under this scenario because the two other cases planted a larger acreage to corn (250 acres).

Metolachlor and bentazon losses in runoff, sediment, and percolation were lowest in the case where one-fourth of the farm was planted to alfalfa. Paralleling the situation with the high productivity soil, this was done to a reduction in total soybean acreage.

Positive levels of the insecticides dimethoate and carbopurran were not predicted in runoff, sediment, or percolate in any of the cases on the low productivity soil. This is a result of their smaller application rates relative to the herbicides and their shorter half-lives.

REFERENCES


NEW BOOKS RECEIVED

Building Soils for Better Crops—Fred Magdoff. University of Nebraska Press, 901 N. 17th St., Lincoln NE 68588-0520. 176 p. $22.95.