

Table 2. Corn Yield Challenge data summary, 7-year average.

Year	Yield, bu/A	Market price, \$/bu	Revenue, \$/A ¹	Expenses, \$/A ²	Expenses, \$/bu	Net return, \$/A ³
1992	183	2.10	383.99	101.09	0.55	282.90
1991	145	2.50	362.32	117.32	0.81	245.00
1990	158	2.30	363.20	119.80	0.76	243.40
1989	170	2.38	403.98	123.86	0.73	280.12
1988	155	2.74	423.59	117.80	0.76	305.79
1987	168	1.53	256.75	103.20	0.61	153.55
1986	145	1.38	200.59	106.95	0.73	93.64
Average	160	2.13	342.06	112.86	0.70	229.20

¹Yield (bu/A) x Market Price

²Fertilizer, Seed & Chemical Expenses Only

³Revenue-Expenses

year about 30 individuals participate. There are rewards for the winners with the highest yields and highest profits. There is also a prize and recognition for the highest no-till yield. This promotes conservation of the most important resource, the soil.

In the final analysis, Yield Challenge entrants have gained from the experience . . . in terms of learning more about production input efficiency, higher profitability and resource conservation. The Yield Challenge is continuing in 1993. ■

Nitrogen Loss . . . from page 17

The mechanisms and reasons why volatile N losses occur from plants is not understood. Some researchers attribute N losses mainly to inefficient N translocation and reassimilation within the plant.

However, this does not explain why large losses are noted in some studies while only negligible amounts are detected in others. Research is needed to determine which environmental and physiological factors affect or control N loss processes. Nitrogen availability and moisture stress are two factors which appear to do so.

Summary

It may seem inconsequential whether N losses are coming from the soil or plants, but it becomes important as we continue to look for ways to improve N fertilizer use efficiencies. For example, failure to consider volatile plant N losses will result in overestimation of N losses from the soil by denitrification and leaching. Proper accounting of all N losses from the soil-plant system is needed to fully assess each loss component. This information is necessary as we attempt to develop appropriate means to improve N fertilizer use efficiencies and to properly evaluate any proposed new management strategies. ■

Soil Fertility Manual Slide Sets Available

THE Potash & Phosphate Institute (PPI) released its revised and updated *Soil Fertility Manual* in 1992. The companion slide sets to the manual have also been revised and are now available, either as individual chapter sets or as a 10-chapter package.

The 10-chapter slide package consists of 320 color 35mm slides and includes printed scripts for each chapter. The slides

are a true companion to the chapters in the *Soil Fertility Manual*. They help to illustrate the agronomic terms, soil-plant relationships, and principles of fertilizer and lime use addressed in the manual.

For additional information or to place an order, contact: Circulation Department, PPI, 655 Engineering Drive, Suite 110, Norcross, GA 30092; phone (404) 447-0335, fax (404) 448-0439. ■