

Starter Fertilizers

Two-Treatment Trials

Starter fertilizers were a popular subject of trials in 1991. Of nine with-and-without trials, two found a significant yield increase and one a significant yield decrease with starters, and six trials found no significant yield difference. (See the table) **Jerry and Jill Carlson** found a 3.8 bushel higher yield with a urea-calcium chloride starter. Research at Texas A&M University indicates this nutrient mix can be of value, at least under cool conditions. **Dave and Lisa Lubben** recorded a 1.7 bushel greater yield in soybeans using enzyme and micronutrient products manufactured by Tainio Technique and Technology. In neither of these two trials did the starters pay, however. Balanced against the cost of the products, the starter treatments lost an estimated \$2.21 and \$11.00 per acre, respectively, in the Carlson and Lubben trials.

Dave Lubben reported a significant yield decrease using a starter-foliar combination of products recommended by a consultant and sold by TransNational Agronomy, Ltd. Dave reports the foliar spray was applied about two weeks late, due to delayed shipping, and thinks that it may have caused leaf burn. Lubben also ran two trials using the fertilizer additive ACA (zinc acetate). ACA has increased corn nitrogen uptake in some private and university experiments, but the response is hard to predict. There was no yield effect in either of Dave's trials with ACA.

Three-Treatment Starter Trials

A number of cooperators compared starter rates or different products with a zero-rate check in three-treatment trials, shown in the table. With no significant yield differences, the zero-starter check won financially in **Mark and Rita Mays'** trial, in **Dick and Sharon Thompson's** trial of corn-following-hay, and (for the third year) in Steve and Gloria Leazer's starter trial. Conventional fertilizers topped both the checks and alternative fertility materials in other trials by Lubben and Thompson. In the three-treatment trial conducted by **Ray and Marj Stonecypher**, both conventional dry starter and alternative, low-salt liquid fertilizers-plus 38 lbs 0-0-60 yielded significantly more than the zero-starter check treatment, but the liquid-plus-dry treatment cost more.

Are Starters for You?

The popularity of starter fertilizers is helped by observable yield responses on some farms and in some years. Even in trials that show no yield increase, starter effects such as faster early growth and silking are often visible. Some producers consider starters worthwhile just for the early competition with weeds and the earlier cultivation they may allow. Others expect no yield response - they simply use starters as a way to apply maintenance levels of nutrients. These different strategies require different financial calculations as well as a few value judgments