

Starter Fertilizer Meets Efficiency Demands

MUNDELEIN, Ill.— Higher corn yields are no accident. They come from strategic fertility programs based on thorough soil testing and efficient fertilizer placement.

Supported by university performance results, starter fertilizers have taken a lead position in placement techniques across the Midwest in conservation and reduced tillage operations, said

Dr. Sam Kincheloe, director of agronomic services with IMC Fertilizer, Inc.

"The trend has been toward earlier spring planting," he said. "Even in so-called normal years, seed corn is usually placed in cold, wet ground and although soils warm up rapidly and dry, starter fertilizer can increase yields and should be investigated as a primary placement technique for the progressive farming operation as

part of the total fertilization program."

The bottom line is yield and profit when scrutinizing placement techniques. In a recent study completed by Kansas State University, the success of banding potassium in a starter fertilizer treatment, in combination with nitrogen, boosted yields as high as 18 bushels per acre during a cold, wet planting season.

Starter K -- Yield Benefit Trial

Nitrogen lb/A	No K ₂ O bu/A	20 lb/A banded K ₂ O bu/A	Starter Advantage bu/A
0	72	80	8
75	128	137	9
150	167	182	15
225	166	182	16
300	167	185	18

Soil K - very high

As noted in the table, the benefits from banded potassium was greatest at the higher yield levels made possible by increasing nitrogen rates.

Kincheloe said starter fertilizer

also enhances rapid, early growth and tasseling of the corn crop.

In a Nebraska study, starter treatments of phosphorus were tested for early corn growth and final yield. The starter results

demonstrated a yield gain of 24 bushels more grain per acre than broadcasting the same fertilizer and 47 bushels more grain per acre than the untreated check plot.

Starter P -- Early Growth and Yield Trial

10-34-0 100 lb/A	Early Growth (12-16 inch stage)	Grain Yield
Check	9.1	1553
Starter (2x2)	17.5	200
Broadcast	15.8	176
Sidedress (early June)	9.2	164

Soil P - low (N,K,S and Zn uniform rates)

"Many growers are content to produce around the check yield level of 153 bushels as in the field study," said Kincheloe. "But, varying climatic conditions and soil types don't always allow for these kinds of yields. Therefore, yields can be lost by not using a starter

fertilizer and in this case, 47 bushels an acre at \$2.50 corn, totals a \$117.50 of increased return."

Starter fertilizer not only boosts yields but also hastened maturity by lowering grain moisture at harvest and increasing concentration of nutrient content, like phos-

phorus, in plant tissue, said Kincheloe. In further research, University of Wisconsin measured maturity performance benefits of starter fertilizer with phosphorus at both low and high soil test value as seen in the following chart. Cold soils at planting time emphasize these effects.

Starter P -- Maturity and Moisture Trial

Low soil P	Tissue P	Grain Yield	Grain Moisture
No P ₂ O ₅	.33	124	29.9
70 lb/A P ₂ O ₅ (banded 2x2)	.50	158	27.6
High Soil P			
No P ₂ O ₅	.40	160	30.5
70 lb/A P ₂ O ₅ (banded 2x2)	.45	171	29.4

University of Wisconsin

According to Kincheloe, there is not much to question about the efficiency of starter fertilizer for Midwest row crops. "Banded or

starter applications have tended to show greater efficiency when soil conditions are cool at planting," he said. "In the majority of univer-

sity testing, starter treatments were also consistently superior regardless of the other methods used in combination with a starter."

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(2) JD 820, one with cab, MF 65, new motor, new rubber, Styled Model D w/turning brakes, Unstyled AR 717/222-4432

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(2) NH #8 forage wagon, fair condition, 3 beaters and roof on both, no running gears, \$1000/ea 717-259-7211 After 7PM Adams Co

2 Snyder Fertilizer tanks, 100/gal each John Blue squeeze pump, came off #7000 JD Planter \$600 215/932-8072

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