

Using Starter Fertilizer

Starter fertilizer increases the corn grain yield of no-till and conventional corn seeded in cold soils. The N component of starter fertilizer usually has the most impact on the crop, but phosphorus (P) also can be beneficial, particularly on low P soils. Potassium (K) in starter fertilizer is least likely to be beneficial.

The best starter application method is to place the fertilizer 2 inches below and to the side of the seed row (2x2), but other placements may be helpful in certain cases. Placement close to the seed is risky because fertilizer salt or ammonia may inhibit germination or injure seedlings. Sandy soils and dry conditions increase injury risk.

Guidelines for assessing the potential for salt injury are based on the fertilizer's N plus K₂O content (see below). Do not apply more than 40 pounds of N per acre as monoammonium phosphate, diammonium phosphate, or 10-34-0 in 2x2 placement for corn.

Source: Purdue Crop Diagnostic Training and Research Center and Integrated Pest Management. Purdue University Corn & Soybean Field Guide. 2007 ed. Published by Agricultural Communication Media Distribution Center.

Crop	Starter Fertilizer Placement	Maximum N+K ₂ O (lbs./A)
Corn	With seed on sandy soils	5
Corn	With seed on other soils	8
Corn	Within 1 inch of seed	20
Corn	2 inch x 2 inch band	100
Soybeans	With seed on all soils	0

Example: If applying 150 pounds of 7-21-7 as a starter fertilizer in the seed slot, the amount of N+K₂O equals 21 ($150 \times 0.07 + 150 \times 0.07$)

Source: Purdue Crop Diagnostic Training and Research Center and Integrated Pest Management. Purdue University Corn & Soybean Field Guide. 2007 ed. Published by Agricultural Communication Media Distribution Center.