

## No Till Corn: 4

# Weed Control

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Success with no-till depends on good control of existing vegetation cover and weeds throughout the growing season. Unlike conventional tillage, there is no option of cultivation if the chemical program proves inadequate. Vegetation control requires more skill in the no-till system.

No-till can be used on sod or meadow fields and on crop residue fields such as corn or wheat. Control of weeds may require different chemical tools for each situation.

Existing sods are the greatest challenge to good vegetation control. Previous management of the sod is

important. If the sod crop has been clean harvested, vegetation control and corn establishment may be more successful than where the crop residue has been allowed to accumulate. Residues can interfere with the physical establishment of the corn plant. Excessive trash absorbs soil-applied herbicides, interferes with the desired operation of the fluted coulter, prevents proper placement of the seed, and most importantly, results in poor closing of the soil over the seed to give the desired seed-soil contact.

Soil type, organic matter, sod density and moisture condition after treatment influence sod kill. On dense sods, increase the gallonage of water to 40-50 gal per acre to obtain thorough coverage and wetting. On a clean crop field, where the vegetation cover is not dense, 20-25 gal per acre is adequate.



Cultivation is not an option in the no-till system if the chemical program proves inadequate.

## Suggested Treatments for Vegetation Control

Type of Vegetation Cover	Suggested Treatments
1. Predominantly alfalfa or considerable perennial broadleaf weeds plus some grasses, such as timothy, bromegrass and annual weeds.	Apply 2, 4-D low volatile ester at 1¼ lb/acre 7 to 10 days before planting corn. Apply atrazine at 2 lb/acre plus paraquat* at 1 to 2 pt/acre at planting time.
2. Predominantly grasses, such as bluegrass, timothy, bromegrass and annual weeds.	Apply atrazine at 2 to 3 lb/acre plus paraquat* at 1 to 2 pt/acre at planting time. Use the higher rates where the harder-to-kill species, such as bromegrass, predominate.
3. Predominantly quackgrass plus broadleaf annual weeds.	For maximum control of the quackgrass, use a split application of atrazine. Apply atrazine at 2 lb/acre plus crop oil at 1 gal/acre or a crop oil concentrate at 1 qt/acre when quackgrass has started active growth in the spring and 7 to 10 days before planting. At planting, apply atrazine at 2 lb/acre plus paraquat* 1 to 2 pt/acre. If perennial broadleaf weeds are also considerable, use 2, 4-D low volatile ester at 1 lb/acre with the first application of atrazine.  If the split application timing is not feasible in keeping with early corn planting, apply one application of atrazine at 4 lb/acre plus paraquat* at 1 to 2 pt/acre at planting.
4. A grain stubble or the residue of a row crop, such as corn or soybeans where annual grasses and broadleaves predominate.	Apply atrazine at 1 to 1½ lb/acre plus alachlor at 2½ to 3 lb/acre plus paraquat* at 1 to 1½ pt/acre at planting time.
5. A grain stubble or the residue of a row crop, such as corn or soybeans, with annual grass problems plus specific weed problems, such as nutsedge, jimson weed, smartweed, Canada thistle.	Refer to Extension bulletin E-434 "Weed Control in Field Crops."

\*When paraquat is used, include in the tank mix X-77 or a similar non-ionic surfactant according to manufacturers suggestions.

Atrazine at 2 lb/A = Aatrex 80W at 2½ lb/A or 4 L at 2 qt/A.  
Alachlor at 2½-3 lb/A = Lasso at 2½-3 qt/A.



**Proper control of the existing vegetation is essential to a no-till crop management program.**



**The gallonage of water needed on a crop residue field is less than required for a dense sod.**