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No Till Notes: Weed Competition

By Mark Watson, Panhandle No Till Educator

I was visiting with a friend of mine who uses conventional tillage to produce his crops and he was concerned with the weed competition in his fields because of the wet month of June. He was having trouble keeping up with the weed competition because of all the rainfall and not being able to get into his fields to get the fields sprayed timely. He told me he was glad he had GPS capabilities with his sprayer because in places in the field he couldn't see the corn rows through the weeds.

I feel this problem was created by disturbing the soil surface with the tillage operations and incorporating the weed seed into the soil where it becomes viable for germination. With no till crop production the minimal soil disturbance at planting, along with the residue and good crop rotations helps minimize the weed competition in the fields.

After my conversation with my friend I sprayed a field of corn the following day which hadn't had any herbicide since last fall. We sprayed the field in mid October to eliminate any winter annuals and the volunteer wheat where we planned to plant corn in the wheat stubble this spring. The field stayed clean through corn planting and by the time I sprayed it the corn was 10 inches tall and there was some weed pressure but not enough to cause any significant crop injury.

I've also been examining some of our other dry land corn fields to determine why some fields have stayed relatively clean this spring and others had more weed pressure in them. I've concluded that where we used good crop rotation there is significantly less weed pressure. The fields where I have the most weeds are the fields where we stacked wheat and planted winter wheat 2 years in a row. I suspect the reason is we let some of the problem weeds go to seed after wheat harvest.

The fields that have the fewest weeds are the ones where we had proper crop rotations with a wheat-corn-legume or a wheat-corn-millet rotation on our dry land acres. On our irrigated fields where we have a wheat-corn-dry edible bean rotation the fields stay relatively clean.

I'm convinced that no till crop production practices, along with minimal soil disturbance, residue on the soil surface, and proper crop rotation will go a long way in controlling problem weeds in our fields. If I stack wheat crops and don't control the weeds between crops as well as I should, I'm inviting weed pressure into those fields in the years to come.

Our irrigation totals to date are still 2.25 inches on the winter wheat and no irrigation on the corn or beans.