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Why Do We Have Weeds?

Webster's definition of a weed is any plant growing out of a place, and as we well know they can crowd out the desired crops we have planted. Why would this be the case? Have we not built an environment very favorable for many hard to control weeds? There are more weed species in our soils that we can count at times. So, what is the solution?

Start with the soil.

- Balancing soil nutrients. Especially your cations. (Cations being any positive atom or group of atoms.) Ca++, Mg+K+ Ammonium NH4.
- Most weeds grow best in out-of-balanced soils. Exceptions are lamb's quarters, and redroot pigweed. Increasing calcium availability reduces grass pressure.

So, what we have seen over the years for better weed control is maximizing auxin release through residue digestion. This auxin releases through the root hairs of the crop plants. (Corn, soybeans, etc.) Which is a natural growth hormone. It can be a beneficial plant growth stimulant to many domestic crops. However, it acts as a weed/grass depressant for weeds.
Things to look for in the soil to insure better weed control.

- Do you have a good decay system?
- Is your soil anaerobic? Is the soil low in oxygen and high in carbon dioxide with iron and aluminum running wild?
- Do you have high Mg to low Ca ratios, and too much salts and acids?
- Are you using good quality manures? There is salt in manures as well as Paylene.
- Are you using dolomitic lime?

If you have grass pressure the problem is normally low water soluble calcium with high Magnesium levels. Too much tillage can disrupt the biological decay system.
Having problems with Rhizome weeds such as Johnson grass or shatter cane? Look for high magnesium, high iron and aluminum to create a problem that rhizomes thrive on. The decay system shuts down, sodium, iron, and aluminum accumulate…but calcium, sulphur and the life support nutrient magnesium drops out of solution.

Normally when nutrient balances are changed to reduce weed problems, both the quality and quantity of your crops will improve.

Article prepared by Todd Zehr, owner of SoilBiotics.

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