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Corn/Soybean Inputs: Sugar

As planting season approaches, all of the decisions we make to produce a bumper crop get put in to motion. Some of those decisions can impact yields in a big way – hybrid/variety selection come to mind. Others may be little things we try to coax that last little bit of yield out of a corn or soybean crop. One 'little thing' tried over time has been foliar applications of sugar.

Numerous studies have been conducted looking at sugar applications in field crops with mixed results. Studies at Ohio State showed no yield response in corn or soybeans. A group of field research studies in soybeans that included sites Wisconsin, Illinois, Indiana, and Minnesota looked at four different sugar sources, none of which yielded a significant yield response.

University of Nebraska's work on corn and soybeans showed inconsistent yield response results, but some years suggest some yield responses. They also looked at stalk strength benefits from sugar applications. Again, results were inconsistent but generally not significant.

Should sugar applications be ruled out completely? Maybe not, but research would suggest it likely won't be a significant yield-enhancing addition to spray mixes and likely won't warrant standalone applications. For links to these studies, see the Weekly News Articles section of the Crops and Soils tab at www.meadowlark.k-state.edu.

Tree Planting Rules

One of the more impressive displays at most garden centers is their selection of trees. If such a display has encouraged a tree-planting project, consider these tips for the best success.

Start with the right tree. Too many selections end up with unwanted fruit production or disease/insect pressures you never thought of. Check out our recommended plants resource: <http://hnr.k-state.edu/extension/info-center/recommended-plants/index.html>. If your garden store has its own nurseryman, they are a great source of information as well.

Keep trees well-watered and in a shady location prior to planting. Never remove by grabbing the trunk. Always lift by the root ball or pot. If there are wires/labels/cords on the tree that can cause girdling, remove them. Finally, remove just enough soil to locate the root flare.

A properly sized hole is important. Dig holes deep enough so trees sit slightly above nursery level on solid ground (not fill dirt). Planting width should be three times the width of the root ball, with soil loosened to five times the root ball diameter for faster root spreading.

Once the hole is in place, remove all containers as best you can. Some wire baskets can't be removed and should be cut back as much as possible and rolled in to the hole. If roots have been circling in the container, cut and fluff them out, so they do not result in girdling later.

Backfill the hole with the same soil you removed. No amendments or fertilizer are necessary. Add water as you fill to ensure good root to soil contact and prevent air pockets.

Tree leaf buds release hormones that encourage root growth. To encourage as much root growth as possible, don't cut back branches after planting unless they are rubbing or damaged.

Water deeply then once a week for the first season (if we don't get enough rain). Mulching will help with water retention (and reduce competition) when added to a depth of two to four inches. It should cover an area two to three times the diameter of the root ball.

Don't stake the tree unless absolutely necessary. Unstaked trees tend to establish more quickly and grow faster if they are not staked. Movement is necessary to strengthen the trunk.