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## Uniformity of Corn Emergence

The air temperature as I write this: 36-38 degrees F – depending on your location in the District. Three days ago, it would have been almost 60 by this time! One day, it seems we ought to be ready to plant corn. The next – we wake up to snow!!

Regardless, the calendar says that April starts next week, and that means that corn planting time is just around the corner. What the calendar doesn't tell us, however, is whether we actually should be planting or not!

Seedling uniformity is one of the most critical factors for corn during emergence. Uneven stands result in yield losses. Work by Emerson Nafziger and colleagues at the University of Illinois showed that when 25-50 percent of a corn stand emerges between one to three weeks late, yield losses can be close to seven to ten percent. As the differences in emergence widened, so, too, did yield losses.

One of the main factors affecting stand uniformity is soil temperature. A KSU experiment a few years ago showed marked differences between late March and mid-April planting dates from a uniformity standpoint, predominantly related to soil temperature. The early planting date had a four inch soil temperature of 46 degrees F. The later: 52 degrees F. It's for that reason that we always suggest consistent (measured throughout the field!) four inch soil temperatures in the 50-55 degree F range (and climbing!) before planting begins. Lower temperatures mean less even germination and emergence – and that translates to yield loss!

## Apple Tree Sprays

Two of our most common apple tree diseases are cedar apple rust and apple scab. While some varieties have resistance, most do not, requiring a fungicide application to prevent disease.

The first fungicide application should be done when leaves appear. A readily available and effective homeowner fungicide is myclobutanil (Immunox). Apply on a seven to 10 day schedule to maintain a protective chemical cover on rapidly developing leaves and fruit. Once you pass petal drop, add an insecticide (Methoxychlor or malathion are good options) to combat codling moth that result in wormy apples. I would offer two words of caution! First, always make sure products are labelled for your intended use! Not all malathion labels list fruit. Only one Immunox formulation lists fruit. You can't apply if it isn't labelled! Second, DO NOT use any insecticide during bloom to keep from harming bee populations.

If you also want to combat summer diseases like sooty blotch and fly speck, consider switching to Captan or a fruit spray mixture around the first of June and add a spreader-sticker to improve the distribution and retention of the pest control chemicals over the leaves and fruit.

For a full rundown of products and application timing for fruit trees, check out Fruit Pest Control for Home Gardens, available through your District Office as well as online at <http://www.ksre.ksu.edu/bookstore/pubs/c592.pdf>.