## Stop 3. SquareOne for Weed Control During Establishment

Aaron Hathaway

SquareOne is a turf herbicide containing carfentrazone, a burndown broadleaf product, and quinclorac, a postemergence crabgrass herbicide with some broadleaf activity. Carfentrazone and quinclorac are also both safe on new seedling turfgrass, which makes this product very useful in new seedings. A trial was conducted at the Hancock Turfgrass Research Center in which tall fescue, perennial ryegrass, and Kentucky bluegrass were planted in a strip-block design on June 14<sup>th</sup>. SquareOne (3 rates) and Drive (1 rate) were applied to these newly seeded turfs 0, 7, and 25 days after seeding (DAS). Competition from crabgrass and broadleaf weeds can quickly stifle new seedings, especially those established in the late spring. This trial sets out to evaluate the use of SquareOne during these new seedings and investigate best timing for SquareOne application after seeding.

Plenty of crabgrass pressure throughout the summer made it easy to see differences in these plots. There was a small window this year in which it was necessary to apply SquareOne to control crabgrass and broadleaves before they affected the overall turfgrass vigor and, subsequent, cover, but also wait long enough after seeding so weeds were either present when the product was applied or the residual of Drive was still present when crabgrass seedlings germinated. Although this is not the only use for SquareOne, it can be a very versatile product for a lawn care manager.

## Stop 4. Major disease problems on Kentucky bluegrass turf

Dr. J.M. Vargas, Jr.

Kentucky bluegrass is the most common species used on home lawns and athletic fields in Michigan. The major disease problems on Kentucky bluegrass are necrotic ring spot, dollar spot and rust. Dollar spot usually occurs when the humidity is high and the temperatures are moderate. It is also more of a problem when the turf is growing under low soil moisture and low nitrogen fertility. Necrotic ring spot symptoms occur when the temperatures are hot, humidity is low and there is a lack of rainfall. The fungus attacks the roots of Kentucky bluegrass so low soil moisture makes the disease worse. The symptoms of necrotic ring are more visible when fertility levels are low. Rust is a major problem in late summer and through the fall. It is most severe when the turf is under low nitrogen fertility. The severity of all these diseases can be reduced with proper irrigation practices, like daily irrigation, and monthly application of nitrogen.