

NEW MANAGEMENT OPTIONS FOR CYLINDROCLADIUM BLACK ROT (CBR)

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Trials at Tifton, Attapulgus and Plains in small plots with severe disease pressure verified differences among cultivars in susceptibility to CBR. Newly released cultivars GA-02C and Carver again looked very promising, although there was some variability in results. Carver yielded 920 lb/A more than Georgia Green in Plains, but they had similar yields in Attapulgus. GA-02C had more than 700 lb/A higher yield than Carver or Georgia Green in Attapulgus, but was intermediate between the two at Plains. These results were validated in an on-farm trial conducted in a field with CBR pressure. GA-01R has previously shown resistance to CBR, and in Baker county it yielded 5872 lb/A vs 5264 and 4747 for DP-1 and C-99, respectively. GA-02C, Carver and Georgia Green all had similar yields in a mid-maturity test, but AP-3 did not hold up well to CBR and had 700-900 lb/A less peanuts.

Some growers in shorter rotations and severe CBR problems are interested in pre-plant fumigation with metam sodium, but many of them are planting twin rows where we have very little experience. Results from 2003 showed significant differences in control according to placement of the chemical in twin row plantings. The best response was obtained by injecting half the total amount under each of the twin rows. The next best approach was to put the full amount between the rows, and the least effective was to put the full amount under just one row. An additional response was also seen to 15 GPA versus 10 GPA which is usually adequate on single row peanuts. This test was repeated in 2004, but there was little response to any application method, although it tended to be better at the 15 GPA rate of fumigant. Soil conditions during application were favorable, and it is not known why there was not a better response to the fumigant.

Questions have also been raised regarding tillage effects on CBR and fumigation methods. A replicated test in Attapulgus showed no difference in CBR levels or yield between conventional plots and those strip-tilled into a wheat stubble. Metam sodium was also applied in this test using a modified KMC strip-till unit. With the sandy soils in Attapulgus, the application went smoothly. However, heavier soils or thick mulch covers may make it difficult to get a good seal of the applicator chisel trace.

Another option holding great promise for management of CBR is an experimental fungicide, JAU6476. We had previously documented some benefit from currently labeled fungicides such as Folicur and Abound, but at two locations in 2004, JAU6476 again had the highest yields of any treatment. It was particularly effective when applied in furrow followed by sprays during the growing season. This concept merits further research since *Cylindrocladium* is known to infect young, developing root systems, especially in cool soils.

The future looks promising for management of CBR. Several new cultivars offer greatly improved yields under heavy disease pressure. Although the worst fields may still require fumigation, in many cases the grower can rely on the better levels of resistance now available and avoid the high up-front cost of fumigation that might end up as wasted money in a year of low disease severity. Registration of new fungicides will offer even more options. Combinations of these practices need further evaluation to optimize economic return to growers.