Research Needs for Environment Technical Advisory Group

Effective/Updated 9/25/2014

ISSUE: Altered soybean growth due to roadway lighting

SUMMARY OF PROBLEM: Impacted soybeans mature at a different rate than the rest of the field. Therefore, at harvest time the impacted soybeans at the edge of the field are still green. The farmer must wait for the impacted soybeans to dry down and therefore comes back at a later date to harvest them. This results in added costs to the agricultural community and sometimes to the Department.

The problem tends to manifest itself on rural roadways with really tight right-of-ways. Soybean damage has also occurred around highmast light towers adjacent to cultivated fields.

DESIRED RESULTS/OUTCOMES: Through research determine the scope of the problem; are soybeans the only crop that exhibit this response, what light levels and/or wavelengths illicit the response, how close is too close to install a roadway lighting system, etc. Come up with a solution to the problem.