

Swedes reducing pesticide use through technology, training

by Hugh Maynard

Responding to public pressure focused mainly through the media, Swedish farmers have reduced the amount of pesticides applied to crops by 50% in the past four years. Herbicides account for 80% of pesticide use in that country, with 18% fungicides and 2% insecticides.

Half of this reduction is attributable to the use of newer herbicides that require lower doses, and to acceptance of reduced effectiveness (i.e. 90%) by farmers.

The remainder has been accomplished through a program of certification and equipment calibration. Farmers must take a one week course to obtain a licence for using pesticides and a one day refresher course every five years to maintain it.

The success of the course, according to Kenneth Arness of the Swedish University of Agricultural Sciences, depends on the ability of extension personnel to convince farmers that the certificate is in their interest i.e. will help lower costs. He notes that there is a correlation between yield and pesticide use. Too little has no effect and too much makes no difference after a certain amount of application.

But the program does not just leave everything up to farmers. The University runs a program that trains testers for accuracy and evenness of distribution in sprayers. These testers then go out to farms to calibrate spray equipment.

Arness says that it is impossible to judge sprayer distribution by eye, therefore the necessity for such a program.

"We go to the farmer because they won't come to a workshop. It just takes too much time" he says.

The University is also emphasizing research to develop new types of sprayers. Their work to date shows promise in forced air spraying, which they believe reduces drift and increases the penetration and deposit of the pesticide on the soil or target crop.

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