WEED PROBLEM IN SUGAR BEETS IN OHIO

By: E. W. Stroube [1]

We cannot generalize to a great degree in making weed control recommendations. Weed species vary greatly from one area to another or even from farm to farm within an area. Possibly the most troublesome weed in sugar beets in Ohio is smartweed (Polygonum species). This weed was not included as being a serious problem in the Michigan and Canada sugar beet areas. Environmental factors certainly can have an effect on weed control practices. An effective weed control program for the Colorado area will not necessarily be the answer to the problems in the more humid climate of our area. Soil type, of course, can also alter the effectiveness of herbicides.

In addition to smartweed, other broadleaf weeds in the sugar beet area of Ohio are redroot pigweed, lambsquarter, and to a lesser degree, wild mustard, velvetleaf (buttonweed) and venice mallow (flower-of-an-hour). The most common grasses are green and yellow foxtail and barnyard grass. There are slight infestations of yellow nut grass in certain areas.

A combination of Endothal and TCA has been the general recommendation for weeds in sugar beets in Ohio. The rates vary with soil type, a higher rate being recommended for the heavier clay soils. The question is often asked, why include Endothal - why not TCA alone? We feel that Endothal greatly improves the consistency of weed control, especially when smartweed is a component of the weed infestation. When the weed infestation is one mainly of grasses, TCA alone usually results in good control.

Pyrazon resulted in excellent control of weeds in Ohio studies in 1963; however, in 1964, it alone or in combination with TCA was little or no better than Endothal plus TCA.

Beets are very tolerant to all three of these compounds. In Ohio studies no injury was observed at rates of 10 pounds per acre of any of the compounds. Further studies will be conducted in Ohio to determine more specific rates of Pyrazon and TCA. At the present, it appears that it will require four to six pounds of Pyrazon per acre in combination with about eight pounds per acre of TCA. The past two seasons have been quite dry and fairly good season-long control has been obtained. However, under higher rainfall conditions a supplemental application of a herbicide may be required. This phase will be included in future investigations.

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