Virginia Polytechnic Institute, Blacksburg, Agricultural Extension Service
MR-172

SUGGESTIONS FOR THE CONTROL OF STICKWEED OR RIVERWEED (Verbesina occidentalis) WITH 2,4-D

There seems to be little difference in the effectiveness of the different forms of 2,4-D on stickweed. The determining factors would be the type of spray equipment to be used, the possibilities of injury to sensitive crops near where the spraying is to be done, and cost and availability of the various forms of 2,4-D.

There are high and low-gallonage sprayers available for weed control spraying, either to be operated from the power take-off of a tractor or as self-contained units. High-gallonage sprayers usually apply from 50 to 150 gallons of spray per acre and operate at a relatively high pressure. Low-gallonage sprayers deliver from 5 to 20 gallons per acre, depending upon nozzles used, rate of travel, and pressure. Low-gallonage sprayers operate at low pressures. In low-gallonage sprayers, either the amine or ester of 2,4-D can be used. With high-gallonage applications, the sodium salt of 2,4-D, in addition to the other forms mentioned, can be used. Sprayers used for applying 2,4-D should not be used for applying other sprays to plants.

Of the three forms of 2,4-D, the ester must be handled with more care than the others, since it tends to vaporize; and these vapors may be carried a hundred feet or more from the point of application and damage sensitive plants, such as tomatoes and grapes.

The cost of 2,4-D for the first treatment would be between $1.50 and $3.00 per acre, depending on the form of 2,4-D used and the quantity purchased. Labor and equipment would have to be added to this figure for total cost of the treatment.

Another weed, Actinomeris alternifolia, is similar to stickweed but is not readily killed by 2,4-D. This plant has alternate narrow, dark green leaves on the stalk and blooms just before stickweed. It is less common than stickweed and usually grows in moist to wet locations. Stickweed, on the other hand, has relatively broad, light-green leaves that are placed opposite on the stalk. Stickweed is prevalent on well-drained ridges, as well as in moist places.

Recommendations: Spraying stickweed with 2,4-D may be done any time from late June until about time for the flowers to bloom in August. If the spraying is done too soon, some shoots may not have emerged and will not receive any spray. The plants should, however, be actively growing for best results. Little growth takes place after the plants begin to blossom, and spraying after this time may allow a seed crop to be produced.

The 2,4-D should be applied at the rate of approximately a pound and a half of 2,4-D (acid equivalent) per acre at the first spraying. Subsequent spraying will depend upon the amount of re-growth produced, and would probably not be applied until the following year, at which time spot spraying should suffice.

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