

Leaflet H (Revised)

KILLING WEEDS

WITH

CHEMICALS

New York Agricultural Experiment Station

Geneva, N. Y.

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Spraying for
mustard.

Some weeds may be successfully fought with chemical sprays. Wild mustard (more properly called charlock) is a good example. By proper spraying mustard may be eradicated from grain crops without serious injury to the grain. The grain may be blackened some, but not permanently injured. In fields badly infested with mustard, spraying will materially increase the yield of grain. It is a thoroughly practical operation.

What to use. The two leading chemicals for this purpose are iron sulphate (copperas) and copper sulphate (blue vitriol). They are about equally effective. The choice depends on the cost of the chemicals. Whichever can be obtained the more cheaply is the one to use. Use iron sulphate at the rate of 75 to 100 lbs. in 50 gals. of water; or copper sulphate at the rate of 12 to 14 lbs. in 50 gals. of water. In either case the quantity of solution required is from 40 to 60 gals. per acre. Dissolve copper sulphate in wooden vessels—it eats iron and tin.

How and
when.

The solution should be applied in the form of fine spray. This is best done with some one of the horse-power potato sprayers of which there are several good kinds costing from \$60 to \$150. Sprayers carrying one nozzle per row apply about the right quantity. They should be run at a high pressure—80 to 100 lbs. The spraying should be done when the mustard is growing rapidly—about the time the first blossoms appear. After the pods have begun to form the mustard is more resistant and the results from spraying not nearly so good. Spray after the dew is off, on a calm, clear day when it is not likely to rain for 24 hrs. or more. Rain washes off the spray making the treatment less effective.

**Crops safe
to spray.**

The above treatment is safe and practicable in all kinds of grain and grass crops, corn, peas and sugar beets.

It positively cannot be used in beans or potatoes. In other crops its safety should first be tested on a small scale.

Other weeds.

Besides mustard, the following weeds are killed by the spraying: Wild radish, shepherd's purse, wild buckwheat, dandelion, rag weed, sow thistle, bindweed and chickweed. Numerous others are more or less injured. None of the weedy grasses such as quack grass, chess and pigeon grass can be killed by spraying.

**Dandelions
in lawns.**

No entirely satisfactory method of keeping lawns free from dandelions is known. Extra thick seeding is a great aid. The stand of grass should be maintained by 2 or 3 applications of seed each year. Digging out dandelions is largely labor wasted unless done with extreme thoroughness in which case it is expensive and keeps the soil too much disturbed. Dandelions may be eradicated by spraying iron sulphate solution (1½ lbs. to 1 gal. water). Commencing just before blooming in spring spray every 3 or 4 weeks throughout the season. For a few days following each spraying the lawn is much blackened and all white clover is killed but the grass is not materially injured. Iron sulphate discolors clothing and stone walks.

**Weeds in walks
and drives**

Gravel walks, drives, tennis courts and similar places may be kept free from weeds by the use of certain chemicals. Some of the patented chemical weed destroyers are highly effective and convenient to use, but expensive. Practically as good results may be had, at less expense, by using a

solution of arsenate of soda. The Vermont Station recommends 1 lb. arsenate of soda in 8 gals. of water, this quantity being applied to one square rod of surface by means of an ordinary watering pot. One application each year (about July 1) is sufficient to keep down all annual weeds, but a second application may be required for deep-rooted perennials. Arsenic-sal-soda mixture (1 lb. arsenic, 2 lbs. sal soda, 9 gals. water) applied at the rate of 8 gals. per sq. rod is nearly as effective and a trifle cheaper than arsenate of soda. These arsenicals are much superior to common salt.

Orange hawkweed has hairy leaves and stem and conspicuous orange-red blossoms. It is perennial and propagates rapidly by runners and seeds. In tilled land it gives little trouble; but when thoroughly established in permanent grass lands it is exceedingly destructive and persistent. Experiments at the Vermont Station show the best remedy to be common salt sprinkled over the plants at the rate of 18 lbs. per sq. rod or 3000 lbs. per acre. The salt should be applied dry on a bright day in May when the foliage is dry. This treatment benefits grass but may kill clover.