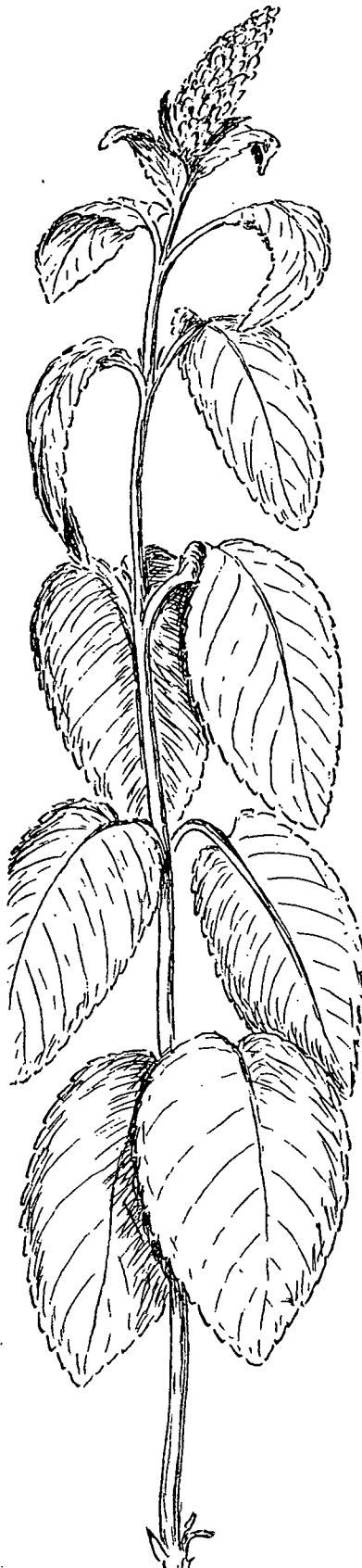


### Spot treatment of quackgrass

Diuron is generally not effective for controlling quackgrass at the rate suggested for selective control of annual weeds. Quackgrass may be eliminated by spot treatment at the rate of 40 pounds per acre (equivalent to  $\frac{1}{4}$  pound per square rod). This treatment will sterilize the soil for 2 years or more.

Monuron (Karmex W) can be substituted at the same rate. Under most conditions it sterilizes the soil for only 1 year.



**Chemical**

**Weed**

**Control**

**in**

**Mint**

**Circular of Information  
559**

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Agricultural  
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# Chemicals Will Control Most Peppermint Weeds

Weeds are a greater problem in peppermint than in many other crops. If distilled with mint, weeds may cause off-flavor of the oil, making it unmarketable or lowering its value. Mint is a perennial crop, usually not grown in rows except during the first year. It cannot be cultivated when weed growth is most rapid. High fertility levels and frequent irrigations are ideal for both perennial and annual weed growth.

During the summer, quackgrass, Canada thistle, pigweed, nightshade, lambsquarter, groundsel, purselane, watergrass (wild millet), and a large number of other weeds become serious problems. During the winter, groundsel, annual bluegrass, chickweed, common ryegrass, and wild oats form a carpet on mint fields in the Willamette Valley.

The common weed control practice in peppermint has been to fall or spring plow and harrow. Then geese, sheep, and hand hoeing are used after mechanical cultivation is no longer possible. Because these methods are expensive, the Oregon Agricultural Experiment Station has conducted research to find if chemicals would control weeds more efficiently.

## CONTROLS

### Diuron (Karmex DW)

Diuron is sold under the trade name Karmex DW. It is a wettable powder that forms a suspension in water and acts through the soil. It is highly effective in controlling nearly all germinating annual grass and broadleaf weeds. This compound normally will give control of most species throughout the summer. Karmex DW is recommended for use at 2 to 3 pounds per

acre as it comes from the container, mixed with 30 gallons of water. Use the 3-pound rate on heavy soils.

*Apply immediately after the last working. Spraying must be done prior to peppermint emergence. Do not apply on peppermint foliage. Since Diuron (Karmex DW) tends to settle out of solution, a sprayer with a mechanical agitator is required. It is important to use at least 30 gallons of water per acre in order to avoid plugging nozzles. Irrigation or rain will be required to carry the chemical into the soil where weeds are germinating and rooting. If at least 1 inch of rainfall has not been received by the time weeds start to appear, irrigate peppermint with at least 1 inch of water.* After application, do not disturb the soil. This prevents turning up new seeds to the soil surface. Work the soil only to break up soil crusting. This chemical does not prevent weeds from germinating, but they will die shortly after they come up. Karmex DW will remain in the soil and control most weed species throughout the summer. At the rate suggested, Karmex DW will not control deep-rooted perennial weeds such as Canada thistle and quackgrass.

Dinitro amine and Monuron (Karmex W) are no longer recommended because Diuron (Karmex DW) has given longer weed control than the other two chemicals.

The use of Karmex DW on new plantings may retard mint establishment, particularly on sandy soils. Unless the weed problem is extremely serious, cultivation is usually the most effective practice for controlling weeds in newly planted row mint.

Karmex DW should not be applied on peppermint that is to be plowed up and planted to any other crop within 1 year of treatment.

## Peppermint Weed Control Recommendations

| Chemical              | Weeds controlled               | Rate/acre  | Time of application                                  | Remarks  |
|-----------------------|--------------------------------|--|--|--|
| Diuron<br>(Karmex DW) | Annual broadleaves and grasses | 2 to 3 pounds in 30 or more gallons of water.    | After last working prior to emergence of peppermint. | Apply with a sprayer that has a mechanical agitator. |
| Diuron<br>(Karmex DW) | Quackgrass                     | 40 pounds ( $\frac{1}{4}$ pound per square rod). | When patches are visible.                            | Sterilizes soil.                                     |
| Monuron<br>(Karmex W) | Quackgrass                     | 40 pounds ( $\frac{1}{4}$ pound per square rod). | When patches are visible.                            | Does not sterilize soil as long as Diuron.           |