IN HIS summary of the weed problem on turf, Howard B. Sprague told the greenkeepers at the Rutgers University short course:

"Weeds are plants growing where they are not planted. They are frequently more aggressive than turf plants."

According to length of life they are:
- **Annuals** which complete growth in one year and produce seed abundantly. Examples: Crab grass, Goose grass.
- **Biennials** which require two seasons to complete growth, the first being used to make and store food for the production flowers and seeds in the second. Examples: common thistle, wild carrot.
- **Perennials** which live more than two seasons, usually begin forming seed by the second season. The most troublesome perennials have creeping rooting stems which contain stored food and send up new shoots. Examples: dandelion, plantain, poison Ivy, field sorrel.

The sources of weed seed are:
- a. Carried by wind, drainage water, and animals, including man.
- b. Introduced in fresh or partly rotted manure.
- c. Added in top-soil used for top-dressings.
- d. Present in seeding mixtures.

To control weeds:
- a. Remove sources of weed seeds.
- b. Maintain turf in vigorous condition to prevent weeds from getting a foothold.
- c. Close mowing kills many types of weeds; prevention of seed formation in the fairways and the rough by mowing also helps.
- d. Use of chemicals, as sprays, or in top-dressing (such as lead arsenate).

**Weed Control.**

Some troublesome turf weeds and suggested methods of control are listed as:
- **Crab grass** — Warm season annual, spreads by seed. Hand-weed greens in June and July. Use lead arsenate in top-dressings and keep turf vigorous, particularly in early spring and summer.
- **Chickweed**—Dust plants with ammonium sulfate or ammo-phos, water thoroughly 24 hours later, remove dead plants and reseed.
- **White clover**—Stimulated by phosphorous and potash fertilizers. Undesirable only on greens. Largely controlled by close mowing plus nitrogen fertilization of...
the grass being treated for the clover. Silver crab grass—Warm season annual, spreads by seed only. Hand weeding in June and July.

_Poa annua_—Very difficult to control. Keep soil moderately dry and maintain vigor of turf by proper treatment. Use lead arsenate in top-dressing. Hand weeding is only method practicable for complete control and this is very expensive.

_Foxtail grass_ — Warm season annual, spreads by seed. Hand weed greens in June and July. Prevent seed formation on fairways and the rough by close mowing wherever seed heads are formed.

_Stink grass_—Same as for foxtail grass.

_Yarrow_—Perennials spreading by root-stocks. When closely mowed makes fine turf. Remove all turf and soil to depth of 3 inches, fill in with clean soil, and sod or replant.

_Plantain_—Perennials without creeping stems. Hand weed or poison with sulfuric acid.

_Dandelion_—Same as for plantain.

_Poison ivy_—Perennials with creeping stems. Poison with sulfuric acid, or spray with calcium chlorate, or grub out roots and rootstocks. Caution: Calcium chloride applied as spray will kill all other vegetation in the same area. However, the soil is not permanently poisoned and may be reseeded after several heavy rains.

**Cleveland Passes New Rules for Greenkeepers**

REVISION of the by-laws of the Cleveland District Association of Greenkeepers was effected at the April 7 meeting of the association. In line with the association’s determination to make holding of its membership credentials accurate indication of high standing in the greenkeeping profession the organization adopted among its by-law changes: a longer term of apprenticeship, a more stringent examination of the candidate’s knowledge of all phases of golf course operation, and U. S. citizenship.