

## CHICORY

(*Cichorium intybus*)



Chicory is a perennial which reproduces by seed; it is also known locally as wild succory and blue daisy. This native of Europe is common across the United States with the exception of the Deep South. It may be found along roadsides, in pastures and meadows, on vacant city lots, and other waste places.

Initial plant growth is a rosette which resembles dandelion, having deeply scalloped leaves. Sometimes these leaves are cultivated and harvested for salads or greens, since chicory is a close relative of endive. Later the rosette sends up an erect stem which may reach to 7 feet high. The stem (2) is smooth and much-branched in the upper portions. The hollow stem center is filled with a bitter-tasting milky sap.

Leaves on the lower portion of chicory retain the dandelion shape, but upper leaves are small, tongue-like and sit directly on the stem.

Flower heads are borne on stalks which grow from the axils of leaves. Each flower head is made up of many tiny disc flowers (3), each with its single yellow petal. The conspicuous blue petals are called ray flowers; they are sterile and produce no seeds. The ray flowers open in morning and evening, and close over the disc flowers during the day.

Seeds are dark brown and wedge shaped; they are  $\frac{1}{8}$  inch long and have a row of bristlelike scales along the top (4).

The root is a white fleshy taproot (1) which grows deeply. It is sometimes cultivated, harvested, dried and used as an addition to or substitute for coffee.

One or two sprayings of 2,4-D will selectively kill this weed. Three or four mowings per year likewise will kill it. It should not be permitted to drop seed.

*Prepared in cooperation with Crops Research Division, Agricultural Research Service, United States Department of Agriculture, Beltsville, Maryland.*

(DRAWING FROM NORTH CENTRAL REGIONAL PUBLICATION NO. 36, USDA EXTENSION SERVICE)

## How to Calibrate Turf Sprayers

(from page 11)

and turf advisors should be consulted for their recommendations before a spraying program is started. If their recommendations are followed faithfully, your spraying program will be successful. If not, the best sprayer made cannot do the job for which it was intended.

Another important point to consider is the choice of spraying equipment. Be sure the sprayer has sufficient capacity to carry out your full program. Make sure it has a tank and piping system which are protected against the ravages of modern day chemicals. Be certain it has a good filter or ample capacity; plugged nozzles will upset your rate of application. Be doubly sure it has a pump that can withstand abrasive and corrosive chemicals you will be using. It should have an accurate and reliable pressure gauge and pressure regulator or relief valve. Make sure also that the boom is protected inside against rust and corrosion.

Buy your sprayer from a reliable source, preferably your turf equipment supplier. He has access to factory warranty and service programs which can be very helpful. Take good care of your spraying equipment; keep it in good condition. Periodically check nozzle capacities. Follow closely the recommendations of your turf advisors, and your spraying program will be successful.

## Elm Beetles Scavenge Kansas

Elm leaf beetles reportedly defoliated Chinese and hybrid elm trees throughout Kansas this summer. Dr. Hugh E. Thompson of the Kansas State University Extension Service said leaves chewed by the beetles dropped to the ground. "Fully grown elm beetles are crawling down the trunks of trees and going into tree crevices or into grass and other hiding places," he noted.

Thompson added that the insect has three or four generations in Kansas. The second generation is working at present and



will soon go into the third generation. Tree surgery potential increases with each generation of beetles as their number increases.

Information on the elm leaf beetles is contained in Kansas State University Extension Bulletin 386, "Control of Elm Leaf Beetles." Copies are available in County Agricultural Extension offices and from the Kansas State University, Extension Service, Manhattan, Kansas.

### Outlines Woody Plant Control

"Chemical Control of Wood Plants," a recent publication by two University of California botanists, explores methods for removal of plant pests such as poison oak, chamise, and other shrubby vegetation (chaparral).

Authors O. A. Leonard of UC's Davis Department of Botany, and W. A. Harvey, Agricultural Extension weed control specialist, claim that removal of these wood plants would be an economic boon to California. "Some of the land now covered by this brush is suitable for conversion for range and crop purposes, other areas may be cleared for watersheds, and still others eventually will be partly cleared for rural living and recreation," they foresee.

Chief chemicals listed in the pamphlet are 2,4-D and 2,4,5-T and various formulations of the two. The publication, Agricultural Experiment Station Bulletin 812, is available from county offices of the UC Agricultural Extension Service and from the Division of Agricultural Sciences, University of California, Davis, Calif. 95616.

### Bean Turfkeeper Displayed

Turfkeeper is a specially designed, high-flotation turfgrass sprayer with a 28 ft. 4 in. plastic boom, John Bean Div., announces. Built in 5, 10, or 20 gpm pump sizes, Turfkeeper is said to eliminate the problems of tearing, gouging, or rutting the turf. Models for 9.00 x 8 Terratires and bomber tire combinations are available. John Bean Div., FMC Corp., Lansing, Mich. 48909 has more information.

## Meeting Dates



- Northeastern Weed Control Conference Turfgrass Field Day**, Virginia Polytechnic Institute, Blacksburg, Va., Sept. 8-9.
- Sixth Annual Alabama Turfgrass Short Course**, Auburn University, Auburn, Ala., Sept. 9-10.
- Illinois Turfgrass Field Day**, University of Illinois, Urbana, Sept. 10, 13.
- Mississippi Turfgrass Assn. Fall Meeting**, Jackson, Sept. 14.
- Northern Michigan Turfgrass Field Day**, Traverse City Country Club, Traverse City, Sept. 14.
- Mississippi Valley Golf Course Superintendents' Association Monthly Meeting**, Field Day and Equipment Demonstration, Westwood, C.C., St. Louis, Mo., Sept. 14.
- Northeastern Weed Control Conference Mountain Lake Right-of-Way Maintenance Conference**, Mountain Lake Hotel, Pembroke, Va., Sept. 14-16.
- Colorado Turfgrass Assn. Annual Equipment and Materials Exposition**, City Park, Denver, Sept. 15.
- Penn State Turfgrass Field Day** on campus, University Park, Pa., Sept. 15-16.
- Northeastern Weed Control Conference Forestry Herbicide Tour**, Mountain Lake Hotel, Pembroke, Va., Sept. 17-18.
- Northwest Nurserymen's Indian Summer Session**, Salishan Lodge, Gleneden Beach, Ore., Sept. 17-19.
- Tennessee Nurserymen's Assn. Convention**, Holiday Inn, Nashville, Sept. 19-20.
- Washington Association of Ground Sprayers, Inc., Sprayarama '65**, Seattle Civic Center, Seattle, Wash., Sept. 20-21.
- California Association of Nurserymen Annual Convention**, Riviera Motel, Palm Springs, Calif., Sept. 21-23.
- Northwest Turfgrass Association Conference**, Hayden Lake Golf and Country Club, Hayden Lake, Idaho, Sept. 22-24.
- Florida Nurserymen and Growers Association Trade Meet**, Naples Beach Club Hotel, Naples, Fla., Oct. 1-3.
- Montana-Wyoming Turf and Nursery Assn. Annual Meeting**, Montana State College, Bozeman, Oct. 3-5.
- Florida Turf-Grass Management Conference**, Ramada Inn, Gainesville, Oct. 5-7.
- Central Plains Turfgrass Foundation Meeting**, Kansas State University, Manhattan, Oct. 20-22.
- Nebraska Association of Nurserymen Annual Convention**, Cornhusker Hotel, Lincoln, Nov. 15-16.
- Pennsylvania Grassland Conference**, Nittany Lion Inn, State College, Nov. 22-23.
- National Weed Committee of Canada, Western Section Meeting**, Palliser Hotel, Calgary, Alberta, Nov. 30-Dec. 2.
- Illinois Turfgrass Conference**, University of Illinois, Urbana, Dec. 2-3.
- North Central Weed Control Conference**, Broadview Hotel, Wichita, Kans. Dec. 5-7.
- Connecticut Nurserymen's Assn. Annual Meeting**, Hotel Statler-Hilton, Hartford, Dec. 30.
- North Carolina Nurserymen's Assn. Annual Meeting**, North Carolina State University, Raleigh, Jan. 3-4, 1966.
- Western Association of Nurserymen Annual Convention**, Hotel Continental, Kansas City, Mo., Jan. 3-5.
- Rutgers Winter Turf Course**, College of Agriculture, New Brunswick, N. J., Jan. 4-Mar. 11.
- Northeastern Weed Control Conference**, The Hotel Astor, New York, Jan. 5-7.
- Indiana Association of Nurserymen Annual Winter Conference**, Claypool Hotel, Indianapolis, Jan. 5-7.
- Iowa Nurserymen's Assn. Annual Convention**, Hotel Roosevelt, Cedar Rapids, Jan. 7-9.
- National Landscape Nurserymen's Assn. Convention**, LaSalle Hotel, Chicago, Ill., Jan. 8-9.
- North Carolina State Annual Pesticide School**, North Carolina State University, Raleigh, Jan. 10-11.
- New York State Arborists Assn. Winter Meeting**, Ithaca, Jan. 16-18.
- Rutgers Lawn and Utility Turf Short Course**, College of Agriculture, New Brunswick, N. J., Jan. 17-19.
- Maryland Nurserymen's Assn. Annual Meeting**, Washingtonian Country Club, Gaithersburg, Jan. 18-19.
- Southern Weed Conference**, Hotel Robert Meyer, Jacksonville, Fla., Jan. 18-20.
- Oregon Association of Nurserymen Annual Convention**, Eugene Hotel, Eugene, Jan. 18-20.
- Wisconsin Nurserymen's Assn. Annual Convention**, Red Carpet Inn, Milwaukee, Jan. 19-21.
- Rutgers Golf and Fine Turf Short Course**, College of Agriculture, New Brunswick, N.J. Jan. 20-21.