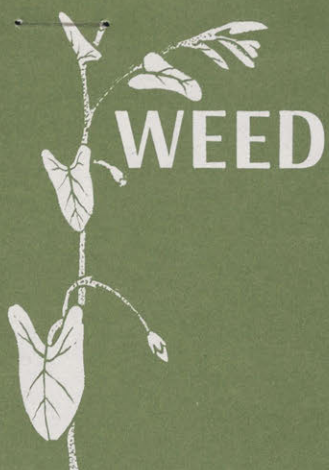




WEED CONTROL NOTES

February 16, 1982

In This Issue:

Dave Cudney on Sabbatical Leave
Cropland and Noncropland Defined
Poisonous Plant Publication Available
Yellow Starthistle
Biology of Nightshades
Wild Oat Research
Storing Herbicide Leftovers

Dave Cudney on Sabbatical Leave

Dave Cudney, Extension Weed Scientist on the Riverside campus, is on sabbatical leave through June 30. He is taking course work to help meet the requirements for his Ph.D. program. Questions should be directed to Clyde Elmore, Art Lange, Jim McHenry and Larry Mitich; however, as a "last ditch" effort, Dave will still be located at Riverside and can help with problems on an emergency basis.

* * * * *

Forests precede man, deserts follow him.

* * * * *

Cropland and Noncropland Defined

The Environmental Protection Agency has finally provided definitions of these terms: "Noncropland is any land on which agricultural product crops have not been planted and will not be planted during the current growing year and to which the pesticide applied will not result in injury to or illegal residue in any crop planted in following years. For purposes of this definition, grazing and pastureland would be considered croplands. Cropland is any land that is used for crop production during the season of treatment or at any time while the chemical remains in the soil at a level which could result in injury to plants or which could result in illegal residue in places. This would include grazing as well as cultivated cropland."

Basically, cropland includes areas that are used to produce food or feed during the period when the pesticide is present. This clarified some areas such as 2,4-D in fallow, etc., as noncropland in most cases. (L. W. Mitich)

* * * * *

About the only way to get along with some people is to get along without them.

* * * * *

Recent Poisonous Plant Publication Available

The Poisonous Plant Research Laboratory, Logan, Utah, has supplied us with a sufficient number of their revised publication, "Plants Poisonous to Livestock in the Western States," to furnish one to each county office. Additional farm advisor requests will be met first-come, first-served from our remaining supply of 20 copies. This publication includes about 26 species found in California, excellent color plates, and measures to reduce livestock losses, including herbicide uses. See your county director for a copy. (W. B. McHenry)

* * * * *

Life may be difficult, but don't forget that you sleep one-third of the way.

* * * * *

Yellow Starthistle

We are often asked if anyone is doing anything on developing a biological control method for yellow starthistle, Centaurea solstitialis. The answer is a definite yes . . . but it hasn't arrived quite yet. The search is an active one, however, by our USDA biological control friends. As part of this project, Dr. Don Maddox, Research Entomologist, Biological Control of Weeds Laboratory, Albany, California, put together an interesting publication on this poisonous weed pest titled "Introduction, Phenology, and Density of Yellow Starthistle in Coastal, Intercoastal, and Central Valley Situations in California," APR-W-20, July 1981. It includes description, distribution, historical origin, developmental growth phases (phenophases), seed development, etc. It does not include control measures.

Don Maddox was kind enough to supply us with about 40 copies for distribution to farm advisors who have a particular interest. The publication provides background facts on yellow starthistle and thus might serve as a usable reference. Write us for your copy, first-come, first-served. (W. B. McHenry)

* * * * *

The human brain is like a freight car--guaranteed to have a certain capacity, but often running empty.

* * * * *

New Reference on the Biology of Nightshades

A new 30-page booklet from the USDA has been released on black nightshade and three related species. The review includes their economic importance as weeds, poisonous properties, taxonomy, morphology including growth habits and vegetative characteristics, and more. Copies of "Biology of Weeds in the Solanum nigrum Complex in North America," ARM-W-23, May 1981, may be requested from Dr. Alex G. Ogg, Jr., Irrigated Agriculture Research and Extension Center, P.O. Box 30, Prosser, WA 99350. We have a few extra copies, available as long as the supply lasts. (W. B. McHenry)

* * * * *

Nothing makes the younger generation seem so bad as having lost membership in it.

* * * * *

COOPERATIVE EXTENSION

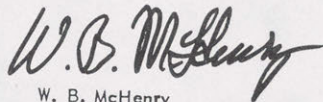
DAVIS, CALIFORNIA 95616

UNIVERSITY OF CALIFORNIA

The enclosed information is provided by Cooperative Extension, an educational agency of the University of California and the United States Department of Agriculture.

Support for Cooperative Extension is supplied by federal, state, and county governments. Cooperative Extension provides the people of California with the very latest scientific information in agriculture and the family and consumer sciences. It also sponsors the 4-H Youth Program.

Cooperative Extension representatives, serving in 56 counties of California, are known as farm, home, or youth advisors. Their offices usually are located in the county seat. They will be happy to provide you with information in their fields.



W. B. McHenry
Extension Weed Scientist

The University of California Cooperative Extension in compliance with the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the Rehabilitation Act of 1973 does not discriminate on the basis of race, creed, religion, color, national origin, sex, or mental or physical handicap in any of its programs or activities. Inquiries regarding this policy may be directed to: Hezekiah H. Singleton, 317 University Hall, University of California, Berkeley, California 94720, (415) 642-0931.

University of California and the United States Department of Agriculture cooperating.

Plant All Cultures Useful in Wild Oat Research

Wild oats cause losses of more than \$300 million in small grains and other crops each year. Plant cell cultures are a valuable research tool in the fight against wild oats. The differential metabolism of a new selective herbicide, diclofop (Hoelon®), was examined in aseptically-grown, cell-suspension cultures of wild oats, cultivated oats, and wheat in research conducted at Fargo, North Dakota.

Herbicide metabolites were qualitatively the same as those reported in intact plants. Relative rates of metabolism and detoxification were correlated with herbicide tolerance.

Metabolism rates were highest in tolerant wheat, intermediate in cultivated oats, and least in susceptible wild oats. Results were consistent with observations of field tolerance and demonstrated the effectiveness of plant cell cultures as a model system to determine the selective action and fate of wild oat herbicides in small grains. (Larry W. Mitich)

* * * * *

A scandal is a breeze stirred up by a couple of windbags.

* * * * *

Storing Herbicide Leftovers

Farmers, home gardeners, and other herbicide users should ideally buy no more chemical than they will use in a single season. In some instances, it is better to buy only the amount that is needed for one or two applications. Because of miscalculations, less need than anticipated, and other factors, nearly everyone ends up with excess herbicides. It is usually more economical and safer to properly store and eventually use these chemicals as directed on the label than to dispose of them.

One cannot accurately predict the shelf life of any formulated herbicide because of differences in types and amounts of inactive ingredients, containers and storage conditions. However, most herbicides will remain usable and effective for two years if properly stored.

Both safety and preservation of the herbicide must be considered when storing chemicals. The following points are applicable for both day-to-day and prolonged storage:

Chemical storage areas should be well-lighted and well-ventilated. For large quantity storage, such as on a farm, the storage building should be constructed of fire-resistant material, have an exhaust fan and preferably a cement floor. There should be a warning placard on all entrances, and doors should be unlocked only when moving chemicals in or out.

Herbicides must be inaccessible to children, irresponsible adults and animals. They should be behind locked doors. Do not store them near food, feed, seed, clothing, or other articles which would be hazardous if contaminated.

Herbicides must be stored in their original labeled containers, and the containers must be well sealed. If a liquid container leaks, its contents should be poured into a labeled container that originally held the same product. If a container of solid material is torn, it should be repaired or placed intact into a sealable container. Like the herbicide container itself, this second container should not be reused for other purposes.

Herbicides should be stored away from other pesticides to prevent contamination and the plant damage that could result.

Storage temperatures ideally should not go below freezing or above 100° F. Herbicides must be kept dry and stored out of direct sunlight.

Previously opened containers and older containers should be emptied before opening newer ones. This can be facilitated by writing the delivery date or purchase date on each container.

An up-to-date inventory should be kept. (L. W. Mitich)

W. B. McHenry
Extension Weed Scientist
University of California
Davis CA 95616

1b
225c

THIRD CLASS

COOPERATIVE EXTENSION
U.S. DEPARTMENT OF AGRICULTURE
UNIVERSITY OF CALIFORNIA
Berkeley, California 94720

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101



John Evans
Cooperative Extension
PO Box 911
San Luis Obispo CA 93406