



"Charter members" of the Illinois Custom Spray Operators' Training School looked on while University of Illinois agronomist and featured speaker Dr. F. W. Slife (seated on right) talked with "first year man" Ray Fuxa (left), Miller Chemical Co. "Old Timers," Lillard Hedden, Pekin aerial spray applicator; farm adviser A. C. Kamm, Monticello; and Weldon Wadleigh, Stauffer Chemical Co., have attended all the Schools since they started 15 years ago.

## Turf and Aquatic Weed Control Surveyed at 15th Ill. Spray School

Contract applicators were among the more than 500 delegates to the 2-day, fact-filled 15th Annual Illinois Custom Spray Operators' Training School, held at the University of Illinois, Urbana, Jan. 23-24.

Although directed primarily at spraymen in agriculture, the school also turned its attention to activities in the fast-growing turf maintenance field, and touched on developments in aquatic weed control.

Dr. F. W. Slife, from the University's Department of Agronomy, led into the sessions on weed control in the urban/industrial market with a review of herbicides, emphasizing pre-emergents.

"Pre-emergent chemicals have proven their worth," Dr. Slife began. "Although there will undoubtedly be new chemicals introduced, CAs should concentrate now on making the best possible use of the formulations available."

The importance of knowing soil characteristics before beginning application was stressed. "Each pre-emergent herbicide moves differently in various soils, and this could influence results considerably," he reminded CAs.

Another important consideration is the length of time a herbicide will remain in the soil, Dr. Slife continued.

Amiben, 2,4-D, dalapon, and Eptam disappear rapidly, Dr. Slife

pointed out. "When used at recommended rates, these compounds do not normally persist for more than a month or six weeks," Dr. Slife revealed. Others, like monuron, atrazine, and simazine, may persist in toxic quantities until the next growing season.

### Sod Webworm Damage Reviewed

"Although there are some 60 species of sod webworms in the U.S., less than one-third are economic," Steve Moore, associate entomologist at the Illinois Natural History Survey, told delegates. Of these, most of the damage in 1962 was caused by the larger sod webworms, *Crambus trisectus* Walker, Moore observed.

"Most obvious sign of infestation is the presence of an unusual number of birds attracted to the lawn to feed on the webworms," Moore pointed out. "But by the time birds invade lawns, there may be brown areas because of extensive webworm feeding, necessitating control measures."

"A well-kept lawn, fertilized and watered, may support a considerable population of webworms without serious damage," Moore revealed. On the other hand, a shortly mowed, dry lawn may be quickly injured.

Careful inspection is required to detect the larvae, but some of the larvae can be flushed out if water from a garden hose is allowed to run on an infested spot of lawn.

According to Moore, DDT and dieldrin were among the most reliable materials used during 1962. Since it is necessary to apply the insecticide to the blades of grass, granular formulations are not recommended, and sprays take priority over dusts.

Moore concluded with the following recommendations: "DDT should be used at the rate of 2 lbs. per acre, or one gallon of the 25% emulsifiable concentrate for an acre; this equals 1 qt. per 10,000 sq. ft. Use 2½ pints of the 1.5-lb.-per-gal. dieldrin emulsion concentrate per acre, or 10 oz. for 10,000 sq. ft. Use enough water, 100 gallons per acre or more, to thoroughly wet the grass, and then do not water the lawn for three days."

"Leading pre-emergence materials for crabgrass control appear to be Dacthal and Zytron," Dr. Slife told the spraymen in his second speech. Dacthal is recommended at 10 lbs. per acre, and Zytron at 15 lbs. per acre.

"Applications should be made about 2 weeks before expected crabgrass germination," Dr. Slife recommended. Both Dacthal and Zytron appear to lose their residue by fall, permitting fall seeding of turfgrass, if necessary.

During his discussion of new chemicals for pre-emergent crabgrass control, Dr. Slife noted that although trifluralin has given excellent control, low turf tolerance may bring homeowner complaints.

Calcium propyl arsonate works best when applications are made just before crabgrass germinates, Dr. Slife remarked. Control lasts only six to eight weeks, and seedling turfgrass has good tolerance to it.

Results have been variable, but generally good, with Diphenatril, according to Dr. Slife. "Turf has good tolerance to it, and like most other pre-emergence crabgrass control chemicals, it works best when applied along with a good fertility program," Dr. Slife conceded.

Dr. Slife concluded the conference with the warning that every sprayman must be on the lookout for any mistakes, since the threat of more and more restrictive legislation on the use of pesticides is very real.