



Grumman AgCat stopped to refill with pesticide during the Texas aerial application exhibition.

Major Pesticide Curbs Unlikely, Texas Aerial Applicators Hear

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No major state or federal legislation to restrict the use of chemicals on food products is foreseen by John C. White, Texas State Commissioner of Agriculture. The official was a speaker at the Thirteenth Annual Agricultural Aviation Conference and Short Course on Pest Control Feb. 23-25 at Texas A&M University, College Station.

White's comments were part of a varied program offered delegates to the annual affair, which seeks to increase the technical competence of a growing number of companies which practice aerial application of pesticides, including custom applicators.

Also on the program was a talk by Minneapolis, Minn., attorney L. L. Schroeder, who detailed the legal liabilities which aerial contract applicators are subject to.

First thing for the flying applicator to do, Schroeder said, is to study local, state, and federal laws relating to the use of airplanes for applying chemicals to plant life.

Schroeder said that the remedy for many hazards is adequate insurance, although applicators must continually seek to reduce the instances in which such insurance would be necessary.

How do pilots get proficient?

One obvious method is through training schools, advised Nicholas C. Merrill, who's Director, Agricultural Aviation, Department of Aviation, Ohio State University, Columbus.

Only two continuing agricultural pilot training courses exist in the United States today, Merrill said. One is at Ohio State; the other is the Agricultural Aviation Academy at Minden, Ohio.

The two U.S. schools produce only 50 pilots a year, though the need is for many more, Merrill observed. With the increased use of aerial application, more qualified pilots must be trained.

While agricultural pesticide drift, whether from ground or aerial application, cannot be completely eliminated, it can be significantly reduced, delegates

A Piper Pawnee agricultural airplane (right) showed how it operates emergency dumping apparatus during the annual conference. Below, a helicopter hovered over the field prior to a spray demonstration.



heard in an address on this problem.

"Generally the greatest cause of drift is inefficient application of chemicals," according to Norman B. Akesson, professor of Agricultural Engineering with the University of California, Davis.

Careless application causes a high degree of drift and makes it necessary to use more pesticide, he elaborated.

Dust applications of pesticides have been popular for many years but their use is declining for two basic reasons, Professor Akesson revealed. First, the control residue deposited on the plants is 1/4 to 1/3 that of a comparable spray when applied by airplane. Dusts also drift farther from the application area than do sprays.

Dusts, however, continue to be used by aerial applicators because they have greater effectiveness in certain insect control programs. Also, since dusts require no mixing or formulating at the application site, less labor is needed to handle and apply this form of pesticide.

There is evidence that some pesticides are more toxicologically effective as fine-particle dusts than as sprays. Agricultural dusts consist of particles with a size range of roughly 0.1 to 25 microns, with an average size of about 5 to 10 microns. These fine particles are about 25 to 30 times smaller than a fine spray and will penetrate plant foliage and deposit on the back of leaves, while larger spray particles will not.

