EVALUATION OF VARIOUS INSECTICIDES AS GRAIN PROTECTANTS FOR WHEAT, 1982: Laboratory strains (non-resistant) of the 3 insects were reared at 26 ± 1°F and 65% RH. Confused flour beetle (Tribolium confusum) was scrubbed and cleaned to remove broken kernels, dust and foreign material. 975 g were placed in each 3785-ml wide mouth glass jar along with 25 g of cracked wheat. The wheat was originally ca 10% moisture and the 1 kg lots were tempered to 12.5% moisture. Each treatment was replicated 3 times. All concentrations were diluted with distilled water and applied at a rate of 1 ml/kg per jar. Applications were made with a 1-ml volumetric pipette to the inside walls of the glass jars above the grain layer while the jars were turning on a 33-rpm turntable. Air tight lids were placed on the jars, and the jars were shaken by hand for 30 sec. Next they were rolled on a horizontal roller for 30 sec and then placed on a mechanical tumbler for 15 min, which allowed the grain to mix end over end in the jars. After the required aging period (24 h or 6 mo) the sealed lids were removed, and the grain in each jar was divided into three 100-g samples with an electric grain divider. Fifty insects were placed on the test wheat in a 473-ml jar fitted with an open ring, 10 mesh screen, and filter paper lid for 1 wk. Then the adults were removed, the live and dead insects were counted, and the jars of wheat were retained for 56 days for F1 progeny. During exposure and incubation, jars were stored at 26°F and 65% RH. Most of the insecticides tested lost some of their ability to cause mortality and limit reproduction after 6 mo aging. However U 56295 and U 5770 retained their ability to cause mortality and exhibit reproduction, and in some cases were actually more effective after aging. These 2 compounds were not at all effective at any dosage level for the control of the rice weevil. U 56295 was the most effective compound tested except for the control of the CF8 and then only malathion was more effective. All of the compounds were more effective than malathion for the control of the LGB.

### LABORATORY TESTING

**LABORATORY TESTING**

**STORAGE PRODUCTS**

Confused flour beetle: *Tribolium confusum* (Jacquelin duVal) Rice weevil: *Sitophilus oryzae* (L.) Lesser grain borer: *Rhyncopertha dominica* (F.)