

Postharvest Chemical Use, 2002

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Overview: The agricultural chemical use estimates in this report are based on data compiled from the 2002 Postharvest Chemical Use Survey. The Postharvest Survey was conducted for apples in the late summer to fall of 2002, referencing the 2001 crop year apples stored. All results refer to pesticide applications made at off-farm storage facilities after the fruits were harvested. These applications were made at the fruit storage facility of the processing facility. On-farm postharvest applications were beyond the scope of this survey. The time frame for postharvest applications were beyond the scope of this survey. The time frame for postharvest applications included in this publication was from August 1, 2001 to September 30, 2002. In the six States surveyed, there were 689 apple storage facility reports summarized. Apples moving from a storage operation to a packing/shipping operation will be duplicated in the reported total amount handled. The intent of the survey was to obtain the entire

amount of chemicals applied to stored apples, therefore, this duplication is necessary. All apples handled in the selected States in the survey were included; State or region of origin was not considered a factor. Totals for the States surveyed as well as individual State totals are published for the percent of apples treated, rate per application, rate per marketing year, and the total amount of active ingredient applied. Other tables included in this report detail total pesticide usage by class, methods of pesticide applications, and volume of fruit treated with wax. Though commonly used as a carrier, the active ingredient petroleum distillate is reported in the insecticide class of postharvest chemicals applied, based on the EPA classification. Apple storage operators were also asked a series of questions concerning their pest management practices related to the fruit handled. Answers to these questions are summarized and included in this report.

Highlights: 2001 Apple Postharvest Agricultural Chemical Use Survey -

Apple storage facilities and processors applied a total of 222,100 pounds of postharvest active ingredients to stored apples during August 2001 through September 2002 in the five States surveyed. This total amount applied includes fungicides as well as other types of chemicals including antioxidants, waxes, and fruit wash/cleaner treatments. States surveyed for apple postharvest chemical use do not necessarily correspond to major apple producing States.

Commonly Used Active Ingredients on Apples: The active ingredient most commonly used as a postharvest application, based on total pounds applied in the surveyed States, was diphenylamine, at 101,100 pounds, followed by thiabendazole, at 48,800 pounds. Diphenylamine is actually a plant growth regulator used to control storage scald and thiabendazole is a fungicide that prevents postharvest decay. Of the total chemical applications made to the 2001-02 marketing year apples in the five selected States, 47 percent were drench applications, 28 percent by direct spray, and 17 percent in the dump tank, while 8 percent used a drip or brush-on method.

