SPOTGUN APPLICATOR PROMOTES SAFETY OF BANANA FIELD WORKERS

OPPORTUNITY

Banana producers working in tropical regions must take extra care to minimize their contact with the agrochemicals used to protect plants from insects, diseases, and weeds. DuPont Crop Protection’s Application Technology group, located at the Stine-Haskell Research Center in Newark, Delaware, was searching for a way to ensure worker safety during the application of Vydate® and Velpar®, liquid insecticides commonly used with banana crops.

The Spotgun applicator used to dispense these insecticides consists of a flexible tube that connects the Spotgun to a special extraction cap with a dip tube that replaces the shipping cap on the Vydate or Velpar bottle. However, in early versions of the applicator, the flexible tube was clamped to the hose barb on the extractor cap. This necessitated switching the extractor cap from empty to full bottles, and left the potential for drips and spills.

SOLUTION

To reduce the chance of leaks and spills and create an effective, closed transfer system, Dupont turned to CPC.

DuPont outfitted its Spotgun Applicator with CPC’s PLC quick disconnect couplings, and later with CPC’s non-spill couplings, to connect the extraction cap to the flexible tube. The extraction caps are placed on the full Vydate bottles at a controlled, central location before the bottles are moved into the field. With CPC’s couplings, bottle changes no longer involve transferring extraction caps.

RESULTS

The new connection exhibits excellent chemical compatibility and flow characteristics. When the coupling insert and body are disengaged, the built-in shutoff valve closes automatically and prevents spillage from occurring.

The use of CPC couplings in Dupont’s Spotgun Applicator has contributed to the product’s safety and effectiveness through a closed transfer system. DuPont’s switch to CPC quick disconnect couplings and more recently to non-spill couplings, has enabled the company to minimize the potential for chemical exposure of its workers.

“We choose suppliers whose products are known for their durability and high performance. Working with CPC has contributed to the effectiveness of the Spotgun Applicator and the safe application of our product.”

— Dr. George Ramsey, Research Associate, Application Technology, DuPont