Like many other things in American life, agriculture is undergoing large, profound changes. This paper will discuss one way that we, as an industry, can adapt to some of these changes.

Because of recent legislation, chemicals that kill a broad spectrum of insects are for the most part being phased out. In order to kill a wide variety of insects, these chemicals often strike at systems that are very basic to living organisms, including vertebrates like ourselves. Many of these chemicals are therefore carcinogenic to people, or they have unintended effects on other higher vertebrates or on the environment at large.

Generally, these broad-spectrum chemicals are being replaced by targeted technologies. These technologies affect just one group of insects or perhaps even just one species of insect under certain conditions. There are many of these technologies, but they all have one thing in common: they usually strike at systems that are less basic than those attacked by broad spectrum insecticides. For this reason, they are generally not harmful to vertebrates.

**INSECTICIDES BEING PHASED OUT**

Two of the broad-spectrum insecticides that are being phased out have important uses in the cocoa industry. The first of these is methyl bromide. Methyl bromide is used extensively to fumigate incoming cocoa beans. The second is dichlorvos or DDVP, sold under the name Vapona.

**Methyl Bromide**

Methyl bromide, unlike many other insecticides, is not a direct threat to human health or wildlife if used properly. But it is a suspected ozone depleter. One of its constituents, bromine, can react with atmos-