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Biological pesticide market to hit \$150 million by 1997

CLEVELAND—The biological pesticide market is expected to reach \$150 million by 1997, according to a business research group here.

Demand for pesticide ⁴⁰ active ingredients is expected to increase 4.7 ₃₀ percent per year until 1997, when it will total nearly \$4 billion, the ²⁰ study says. ¹⁵

The Freedonia Group, Inc. says the increase in demand will be balanced against more specialized formulation used in lower quantities. The volume will be slightly higher than 1992 levels of nearly 1.1 billion pounds.

The Freedonia Group's study, "Pesticides in the U.S. to 1997," says consumption of conventional pesticides is expected to expand 4.5 percent per year through 1997. These products depend a lot on the agricultural sector, and demand hinges on specific factors such as climate and insect population, among other causes.

Herbicides, insecticides and fungicides account for more than 90 percent of all pesticide use.

Biological pesticides currently account for a very small portion of the pesticide market. Rapid growth is expected as new products are developed and marketed, says industry analyst Luci Young. Adding to the increase is the growing interest and research by conventional pesticide manufacturers in alternatives to chemical-based

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N.A.A. mini-survey

on IPM programs,

World Pesticide Consumption (billion US dollars)



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control products.

Agriculture use accounts for more than 70 percent of all pesticides. Demand in agriculture is influenced by climate, number of acres planted, number of acres harvested and the crop mix. Young says corn, soybeans and cotton require the most pesticide care.

The study says commercial pesticide applications by professional pest control and lawn care companies will see growth based on stimulation from the penetration of biopesticide products —which the study call "safer" than chemical controls—and by a stronger economy which will allow consumers and businesses to purchase these services.

Growth in consumer pesticide demand will be based on improved, higher cost formulations and increased usage fostered by the popularity of do-ityourself lawn and garden care.

Biological pest control products have been received with both support and skepticism.

The major drawback to biological products has been their high cost and low efficacy relative to synthetic pesticides, making repeat applications necessary. Products degrade quickly, are sensitive to adverse soil pH factors, and are easily affected by moisture and temperature.

From an environmental point of view, genetically engineered products have yet to be declared completely safe. To overcome these misperceptions, some companies are creating products based upon genetically-engineered bacteria which are killed before inclusion into the finished product. Although dead, the microorganisms retain internally-generated poisons that are fatal to target pests.

Safety questions still prevent widespread use of biopesticides. The Freedonia report says live bacterial, viral and fungal-based pesticides will not be cleared for widespread use until the late 1990s. Products which use dead microorganisms will continue to be marketed.

-Terry McIver

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