

Chapter 2

THE IMPACT OF AGRICULTURAL BIOTECHNOLOGY ON THE CONVENTIONAL AGROCHEMICAL MARKET

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2.1 Introduction

The agrochemical sector comprises numerous products, most of which are chemically based, used to control a variety of weeds, insect pests, and diseases in crops. Many of these products also have nonagronomic applications, including home and garden, forestry, and industrial uses. For the purposes of this chapter, we define the agrochemical sector as including all herbicides, insecticides, fungicides, and plant growth regulators sold in crop and noncrop markets.

2.2 Conventional Agrochemical Market

In 2000, the global market for conventional agrochemical products attained a value of \$27,830 million at the manufacturer level. The most significant component of the market was herbicides, which accounted for 50.8% of the total sales value, followed by insecticides, which represented a further 25.5%, and fungicides with 20.2%. The dominance of herbicides in the agrochemical sector reflected the importance of their use in the cultivation of row crops, especially in North America, Western Europe, and Japan.

As depicted in Table 2.1, the market for herbicides was dominated by the key American and European field crops: maize, cereals (wheat and barley), and soybeans. Herbicide use in the fruit and vegetable sector was also high; however, this sector is relatively fragmented amongst a wide variety of crop types. For the insecticides group, pest control in the conglomerate fruit and vegetable sector was the most important outlet, accounting for just over 38% of all insecticide sales in 2000. Fruit and vegetables were also an important