

## Using research and development to improve agricultural productivity

### The role of R&D



*As society develops, consumer demands change to reflect different needs.*

Consumers want to choose from a range of fresh, high quality products. To meet these needs in a sustainable way farmers have to balance environmental concerns with the need to produce food. Within Syngenta research and development are two separate, but closely integrated, functions.

#### **Research**

Research is a systematic investigation to seek answers to agricultural problems. Scientists such as biologists and chemists develop technologies which may eventually lead to new products. For example, chemists investigate thousands of different compounds to see if they have the potential to be a new crop protection product. Once a suitable compound is identified, then development takes place.

#### **Development**

Development involves turning the research findings into a product. Development scientists perform tests on the compound to see how it operates in realistic growing conditions.

*Research and development at Syngenta involves developing new products and supporting existing products.*

It can take at least 9 years for a product to reach the market. This is a very costly process. Syngenta can only achieve a return on its investment once the new products reach the market. A new product and its active ingredient are patent protected to ensure payback of R&D costs, but this protection only exists for a limited time. Consequently, Syngenta concentrates on fully patentable products to ensure payback and profit.

Research and development at Syngenta involves developing new products and supporting existing products. For example, it has extended the way in which products can be used and has improved their environmental profile.

**Syngenta's goals**

Syngenta's main goals for research and development are:

- \* to provide the most effective products for farmers and growers that are also safe for human health and the environment
- \* to develop the best new plant varieties to gain higher yields and quality in a range of soils and weather conditions
- \* to maximise crop productivity whilst maintaining and improving farmland biodiversity.