

which humans cannot be subjected to clinical tests.

B. AGRICULTURE and FORESTRY

Agriculture is said to be the only truly indispensable industry. Globally, it represents one of the largest economic sectors; where the stakes for biotechnological investment are immense. Although agrobiotechnology has a robust market of over \$1 trillion in the USA alone, commercially it lags behind biopharmaceuticals. The reasons are not hard to understand:

- Plant culture is complex
- The cellular physiology of plants is less well understood than that of animal species
- Since the growth of plants is seasonally dependant, so are many of the experimental procedures

Agricultural sectors which are seeing encouraging development include:

- Pesticides and fungicides
- Insect-herbicide resistant crops, (farmers annually spend over \$20 billion on crop protection)
- Agricultural chemicals for growth enhancement (hormones)
- Rot-resistant species
- Vaccines and animal health products
- Transgenic animals

C. FOOD and FEEDS

Progress in molecular biology and enzymology has provided additional dimensions to traditional plant breeding and fermentation technology, providing new ingredients, and economical, healthier, and tastier products.

Fermentation processes, known and applied throughout the world for thousands of years, are being constantly improved in the name of modern biotechnology. The incentive to exploit biotechnological innovation in the food industry has been increasing due to consumer rejection of processed food and artificial additives in favour of natural and more wholesome foods.

Areas of major activity include:

- Handling and preservation control of primary food sources;
- Modification of basic foodstuffs to improve nutritional and other