



MODERN TECHNOLOGY AND IPM – THE KEY TO SUSTAINABLE COTTON PRODUCTION

The use of the latest modern technology, including integrated pest management (IPM) and biotech cottons is essential to ensure that cotton is produced in the most environmentally friendly manner possible to maintain environmental quality and natural resources.



Since cotton is a crop that is faced with significant pest pressures (e.g., insects, weeds, diseases, etc) some pesticide use is necessary. However, Producers of US cotton are at the forefront of the use of modern technology for IPM to effectively control pests before using pesticides, including:

- Precision agriculture using GPS and satellite technology, which enables farmers to pinpoint which plants need insecticides, thus reducing the need for crop spraying across entire farms;
- Computer-aided management systems to monitor crop development and pest outbreaks;
- Biotechnology to make cotton resistant to pests;
- Agronomic practices to reduce the susceptibility of the crop to pests; and,
- Biological control, such as using natural fungus to attack cotton aphids and eliminate.

The quantity of pesticides used in the production of US cotton was already low. As a result of the use of modern technology and IPM, the result has been a further 50% reduction in the number of insecticide applications per acre since about 1995. On average, only 1.2 kg of insecticides and 2.5 kg of herbicides are applied per hectare during the growing season. This is equivalent to around 1 gram of pesticide for the cotton used to make a T-shirt.

Toxins that could be harmful to human health are not on the cotton fiber and products. In the US, cotton is regulated as a food crop. US cotton is governed by strict regulations by the Environmental Protection Agency (EPA), the Food and Drug Administration, and the US Department of Agriculture, Animal Plant Health Inspection Service (APHIS). Since 1991, samples of raw cotton from many growing regions of the world, including the USA, have been routinely tested by the Bremen Cotton Exchange in its independent laboratory for traces of pesticides (228 substances) and heavy metals according to Eco-Tex Standard 100, Product Class 1, the strictest evaluation criteria. The results showed that all cottons, including U.S. cottons, satisfy the Eco-Label standards and easily pass the regulations for foodstuffs. As in previous years, tests on cotton fiber—from the 2006/7 US cotton crop was found to satisfy the Eco-Label standards and easily pass the regulations for foodstuffs proving once again why cotton is often recommended by dermatologists. The full results of the tests carried out by the Bremen Cotton Exchange, together with details of the methodology used, can be found at www.baumwollboerse.de