

Economic Comparisons of Biological and Chemical Pest Control Methods in Agriculture: An Annotated Bibliography / National Agricultural Library, 1992 / Kim Norris / 1992

Open access peer-reviewed chapter. Biological Control of Insect Pest. By Talha Nazir, Sehroon Khan and Dewen Qiu. Submitted: June 1st 2018Reviewed: September 10th 2018Published: June 19th 2019. Key Laboratories of Economic Plants and Biotechnology, Kunming Institute of Botany Chinese Academy of Sciences, P.R. China. Dewen Qiu*. Key Laboratory of Integrated Pest Management in Crops, Institute of Plant Protection, Chinese Academy of Agricultural Sciences (CAAS), P.R. China. Pest control chemicals are a component of pest management systems, which incorporate new materials that are designed to be highly effective, to be used at low rates, to be selective in their activity, and to have no adverse environmental effects. From: Handbook of Pesticide Toxicology (Second Edition), 2001. As a result of this second incident, the Ministry of Agriculture in Egypt determined to conduct studies with the various pesticides used in spraying cotton to establish whether dietary or dermal contamination from spray drift following field application could cause irreversible delayed neurotoxicity in the water buffalo. An experimental program was planned by an expert committee formed by the Ministry of Agriculture. Beginnings of pest control. Wherever agriculture has been practiced, pests have attacked, destroying part or even all of the crop. In modern usage, the term pest includes animals (mostly insects), fungi, plants, bacteria, and viruses. Human efforts to control pests have a long history. The first book to deal with pests in a scientific way was John Curtis's *Farm Insects*, published in 1860. Though farmers were well aware that insects caused losses, Curtis was the first writer to call attention to their significant economic impact. One method of biological control involved the breeding and release of males sterilized by means of gamma rays. Though sexually potent, such insects have inactive sperm. Control methods. Pests, weeds and diseases (pests) pose serious risk for primary producers as they can impact on market access and agricultural production. Pest control is best achieved with an Integrated Pest Management plan using a range of biological, chemical, mechanical, physical or cultural control methods. To reduce the impacts of pests, the Department of Primary Industries and Regional Development: works with landholders and grower/community/biosecurity groups on control. provides diagnostic services and information on prevention, management and treatment. provides biosecurity measures