

## Biological Method of Cotton Management in Uzbekistan

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The weather conditions in 2007 were favorable for development and distribution of some pests, diseases, and weeds of agricultural crops. Thereby the phytosanitary conditions in this area were compounded. In 2007, the cotton was cultivated on the area more than 1.4 million hectares. In 2007, 254.5 thousand hectares of gardens were treated against pests and diseases, including chemical preparations 20.5 and sulfur preparations 57 thousand hectares, respectively. Also, 90.8 thousand hectares of vineyards were treated, including chemical preparations on 5 thousand hectares, sulfur preparations on 29 thousand hectares, and 84.7 thousand hectares against the pests. Since 1993 the mulberry pest spread in our Republic, the dangerous pest of mulberry trees was delivered with trees from Thailand in 1988 to southern Tajikistan. Since 1993, it spread to our Republic, and it reproduces 5-6 generations in a season, and eats all leaves of a mulberry, sharply reducing the efficiency of the culture. The 31.3 million trees and 9.3 thousand hectares of mulberry plantations have been affected. From the Republic's budget, 27.8 million trees and 6.9 thousand hectares of plantations were treated. The locus is spreading in 558.6 thousand hectares. And chemical treatment was used on 473 thousand hectares instead of planned 450 thousand hectares. The environmental conditions in 70's deteriorated because of chemical treatments on the cotton fields against *Helioptera armigera*. The number of treatments were 3-4 times, and in some provinces, 10-12 times. More attention has started to be given to agrotechnical, mechanical, and biological methods of pest control. Currently, the biology method is the main method in integral plant protection, where the insect parasites are bred in the biolaboratories. The quantity of biolaboratories and biofactories in the Republic every year increases. In 1970, there was only 4, in 1971, 16, in 1985, 710, in 1990, 774, and in 2000, 790. In present time there are 864 biofactories and biolaboratories in our Republic where production of trichogramma, bracons, and golden eyes. In current year, they made 9953.5 kg of trichogramma, 2814.8 million individuals of bracon, and 3162.9 million individuals of goldeneyes. Great success was achieved in development and introduction of biological methods of plant protection in our Republic at present. In 1970, the area of this method was 2.6 thousand hectares, in 1971, 12.5 thousand hectares, in 1985, 3622 thousand hectares, in 1990, 5919 thousand hectares, in 2000, 7574 thousand hectares, and in 2007, 10893 thousand hectares (that is 85.7 % of total crop area of our Republic). It will be planned to increase the biological method of plant protection in Uzbekistan by Program of integrated plant protection from pests, diseases, and weeds in 2008. The big attention will be given to construction of 83 new biolaboratories.