

# University of Zabol Graduate school Faculty of Agriculture Department of Agricultural Economics The Thesis Submitted for the Degree of Ph.d (In the Field of Agricultural Economics)

## **Evaluating the Economic Impacts of Iran Cotton Research in Risky Conditions**

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#### **Abstract**

Cotton is one of the most important agricultural products that in addition to providing raw materials for the textile, oil and feed industries, plays an important role in creating employment in agriculture, industry and trade. It is with other agricultural products in the region, so one of the determinants of competitiveness of agricultural products is research and innovation. This study aims to estimate the economic benefits and surplus of cotton research projects. For this purpose, the results of research projects completed in the period 1394 to 1398 in the Agricultural Research, Education and Extension Organization (Cotton Research Institute) and the method of economic surplus analysis were used. The results of this study show that the present value of total economic benefits or surplus from cotton research for each of the research projects studied in Khorasan Razavi province is 194331 million Rials, Golestan 108495 million Rials, Fars province 68741 million Rials, North Khorasan 25363 million Rials and Ardabil about 28013 million Rials. Is. The average expected internal rate of return of cotton research in Golestan, Khorasan Razavi, Fars, Ardabil and North Khorasan provinces is estimated at 50, 44, 37, 31, and 29%, respectively, all of which have acceptable rates of return. The average expected benefit-tocost ratio of cotton research in Khorasan Razavi, Golestan, Fars, North Khorasan and Ardabil provinces is 7.9, 6, 3.7, 2.5 and 2.3, respectively. At present, investing in cotton research will have acceptable economic returns and will have benefits and profitability. In general, the findings of evaluating the effects of cotton research in the studied provinces show that the use of research findings such as improved cultivars, modern farming methods, new irrigation technologies, mechanization of cotton cultivation and optimal fertilizer treatments increase productivity and increase production and supply. Cotton will be grown on cotton fields. These findings indicate the acceptable economic efficiency of cotton research in the provinces under study. Therefore, this type of research and technology can lead to a positive and significant change in increasing cotton production, improving the welfare and income of cotton farmers, increasing the welfare of cotton consumers, especially spinning and textile industries. And play clothing as well as numerous other industries in the country. The findings of this study show that research on cotton has increased the productivity of all factors of production, which ultimately results in increased benefits for producers and consumers, so invest in the implementation of agricultural research projects related to development. Cotton cultivation is particularly justifiable and can convince policymakers and planners of the country to further assist and provide sustainable funding for cotton research. Based on the findings of this study, it is suggested that since despite the uncertainty and risk of agricultural activities, cotton research ensures the growth of factor productivity and increase cotton production and increase the benefits of producers and consumers, investment in agricultural research in general and cotton research in general Justifies the specific and can convince the policy makers and economic planners of the country to the need for sustainable financing of cotton research. Therefore, based on the findings of this study, it is suggested to equip provincial and national resources for cotton research, especially in major cotton producing provinces, especially Golestan, Khorasan Razavi, North Khorasan, Ardabil and Fars provinces, which have 82.3% of the cultivated area. 82.5% of cotton production is allocated in the country, special attention should be paid.

**Keywords:** Economic returns, economic surplus, producers