

**AN ANALYSIS OF THE CHIHUAHUA, MEXICO COTTON INDUSTRY**  
**Jose Eduardo Magaña Magaña, Juvencio Gonzalez García, Armando Segovia Lerma**  
**and Arturo J. Obando Rodríguez**  
**Universidad Autónoma de Chihuahua-Facultad de Ciencias Agrícolas y Forestales**

**Abstract**

Growers from the state of Chihuahua are looking for crops with higher returns. Cotton should be an alternative that could improve their returns. The cotton production in Chihuahua, Mexico has been decreased as a result of the erratic trends of the international cotton prices and the impact of agricultural policies on the income of cotton growers.

**Introduction**

The Cotton industry of Chihuahua, Mexico, particularly the cotton producers, have been facing the following points:

1. A severe drought season since 1992. Consequently, the dams have not held enough water and the irrigated surface has decreased, dramatically.
2. They are trying to be efficient in using this scarce resource. Cotton should be an alternative crop that could improve their returns via productivity.
3. They are price-takers. They have been impacted by the positive or negative trends of international cotton prices.
4. The production cost by hectare have been increasing (water, seed, fertilizer, pesticides, fuel, salaries and interest rate.
5. Chihuahua is an important cotton producer in Mexico.
6. The social pressure is demanding new strategic and competitive agricultural policies that really help to cotton producers.

**Framework**

Cotton is an important crop in the world because it satisfies the basic need of dressing. The world's large producers-exporters and consumers have dominated the global cotton market. As a result, they are setting up the international prices which impact the income of the Mexican cotton producers, particularly those in the state of Chihuahua.

Mexico has established some agricultural policies in order to support the cotton industry. This policies have more helped processors than producers. This can be demonstrated by the subsidy per bale gave to the cotton processors. A result of it, they bought cotton out of Mexico instead of buying local production by using the federal subsidy. The New Mexican government and the congress have been working with the purpose to establish agricultural policies which permit to cotton producers improve their returns via productivity and phytosanitary programs.

In 1970, the acreage harvested of cotton was 23,256 hectares with a production of 55,796 tons. In 1975 was the highest harvested with 64,680 hectares.. In 1992, the cotton production faced a dramatic acreage reduction. It was caused by the severe drought season above mentioned. The Mexican government established a cotton development program, basically because the cotton processors could face not the same facility to import cotton from other countries. This program and the good prices increased the acreage planted during the period 1994-1998.

In the period 1992-1997, the average harvested acreage in Mexico was 279,275 hectares with a volume of 0.962 million of bales. The state of Baja California Norte was the largest producer with 26.75% of the Mexican cotton production. The state of Chihuahua was the second largest producer with 21.06% of the Mexican cotton production.

Mexican cotton producers are price takers, this means that they do not have the market power to set up prices. Cotton farmers have been supported the other members of the cotton industry,.. They have been facing serious problems such as lack of credits, high interest rates, high incidence of pests, erratic prices and the expensive technology. This tendency decreased the cotton production from 1998 to 2001.

There are two main regions in Chihuahua to produce cotton. The north-west that comprises: Juarez-Casas Grandes-Ascensión-Villa Ahumada has increased its acreage planted in comparison the south-center region: Delicias-Jimenez-Ojinaga. The North-west region besides of its larger production has been achieving the good middling quality.

## **Objective**

The objective of this study was to analyze the production and the impact of the agricultural policies on the Chihuahua, Mexico cotton industry.

## **Methodology**

The enterprise budgets were estimated considering costs of each stage of the production process. The prices and costs estimated were converted to U.S. dollars according to an exchange rate of 9.20 Mexican pesos/ one U.S. dollar.

## **Economic Analysis**

Table 3 shows the prices that cotton producers have been received. The prices per ton received by farmers were erratic. It caused that the incomes of farmers were high in one year, por ejemplo in 2000 the price per ton was USA dollars 561.0, and in 2001 it was 450.0 low er in 111 dollars.

## **Conclusion**

“Suppliers of farmers are happy and rich, Intermediate and final Processors who utilize cotton like raw material are very happy and rich, Distributors and retailers who sell cotton products are increasing their returns and they are very happy, Consumers that buy cotton products are very happy because their needs have been satisfied in the best manner. Why are cotton farmers, who face the uncertainty and risk for growing cotton, less rich and happy?” - Lucas the Farmer

## **References**

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Table 1. The historical data of cotton production in Chihuahua, 1970-2001.

<b>Year</b>	<b>Acreage planted (1000 ha)</b>	<b>Acreage harvested (1000 ha)</b>	<b>Average yield/ha (tons)</b>
1970	23.3	23.3	2.4
1975	64.7	64.5	2.1
1980	37.2	37.2	2.4
1985	29.5	29.0	2.2
1988	46.6	45.7	2.1
1990	34.8	33.3	2.3
1992	3.3	3.3	3.1
1994	23.2	21.4	2.5
1995	38.4	35.9	2.4
1997	56.0	54.1	2.5
1998	57.2	56.2	2.6
1999	33.0	32.4	2.4
2000	33.1	33.1	2.6
2001	32.0	31.9	3.2

Source: SAGARPA, 2001.

Table 2. Acreage planted by region, Chihuahua state.

<b>Region</b>	<b>1998 ha</b>	<b>1999 ha</b>	<b>2000 ha</b>	<b>2001 ha</b>
South-center. Delicias-Jimenez-Ojinaga	42,921	14,010	6,492	11,085
North-west: Juarez-Casas Grandes-Ascensión-Villa Ahumada	14,265	18,994	26,592	20,782
<b>Total</b>	<b>57,186</b>	<b>33,013</b>	<b>33,084</b>	<b>31,867</b>

Source: SAGARPA, Empresas Longoria, 2001.

Table 3. Prices/ton received by producers

<b>Year</b>	<b>Mexican pesos</b>	<b>USA dollar</b>
1995	4,619	502.0
1996	4,494	488.0
1997	4,714	512.0
1998	5,184	563.0
1999	3,789	412.0
2000	5,162	561.0
2001	4,144	450.0

Table 4. Comparison of gross income per hectare in USA dollars by the years 2000 and 2001.

<b>Concept</b>	<b>2000</b>	<b>2001</b>
Production cost	1,304	1,364
sales	1,350	1,238
Gross income without support programs	46	-176
Support programs	217	260
Gross income	263	84