

MAIZE CULTIVATION IN INDIA – PROBLEMS AND PROSPECTS

Dr. Kannakatti Jayanna

Associate Professor &
Director, Responsive Research Project, ICSSR,
Government First Grade College for Women, Davanagere

ABSTRACT: Maize is considered a promising option for diversifying agriculture in upland areas of India. It now ranks as the third most important food grain crop in India. The maize area has slowly expanded over the past few years. Paroda and Kumar (2000) predicted that this area would grow further to meet future food, feed, and other demands, especially in view of the booming livestock and poultry producing sectors in the country. Since opportunities are limited for further expansion of maize area, future increases in maize supply will be achieved through the intensification and commercialization of current maize production systems. In this study attempt has been made to know the growth of production, area and productivity and also problems in cultivation of maize crop.

Keyword: Maize, Production, Productivity and Area

Introduction

The last decade of the 20th century witnessed extensive economic reforms in India, which in turn saw growing stocks of surplus wheat and rice. This, however, came at an associated cost of degradation of both soil and water resources. At the global level, prices of these two leading cereals declined sharply, inducing the farming community to partly diversify agriculture to sustain and augment farm income and improve the quality of soil and water resources.

Maize is considered a promising option for diversifying agriculture in upland areas of India. It now ranks as the third most important food grain crop in India. The maize area has slowly expanded over the past few years. Paroda and Kumar (2000) predicted that this area would grow further to meet future food, feed, and other demands, especially in view of the booming livestock and poultry producing sectors in the country. Since opportunities are limited for further expansion of maize area, future increases in maize supply will be achieved through the intensification and commercialization of current maize production systems.

The changing global scenario is compelling policymakers to adhere to the regulations and obligations set by the World Trade Organization (WTO). The resulting new economic regime is expected to alter the economics of existing cropping systems, including maize, in terms of production, value added, and trade. The question often raised is how research and development efforts can efficiently contribute to intensifying maize production in upland areas while protecting the interests of poor maize producers. In this study attempt has been made to know the growth of production, area and productivity and also problems in cultivation of maize crop.

Objectives of the Study

The major objectives of the present study are as follows;

1. To study the area, production and productivity of maize in India
2. To know the major problems facing by the maize sector in India

Methodology

The present study is mainly based on secondary data. The required data have been collected through different sources such as reports, journals and books. The collected information was arranged in tabular form and graphs. The tools like percentage, average were made used to data analyse the data.

Results and Discussion

Table 1
Area, Production and Productivity of Maize

Year	Area		Production		Productivity	
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)
1997-98	6.32	1.0	10.82	0.5	1711	- 0.5
2000-01	6.61	3.0	12.04	4.6	1822	1.7
2003-04	7.34	10.5	14.98	34.3	2041	21.4
2006-07	7.89	4.0	15.10	2.6	1912	-1.3
2007-08	8.12	2.9	18.96	25.6	2335	22.1
2008-09	8.17	0.6	19.73	4.1	2414	3.4
2009-10	8.26	1.1	16.72	-15.3	2024	-16.2
2010-11	8.55	3.5	21.73	30.0	2542	25.5
2011-12	8.78	2.7	21.76	0.1	2478	-2.5

2012-13	8.67	-1.3	22.26	2.3	2566	3.6
2013-14	9.43	8.8	24.3	59.4	2583	0.7
Average	8.01	3.34	18.04	13.47	2221	5.26

Source: Agricultural Statistics at a Glance, (2014), Directorate of Economics and Statistics, Ministry of Agriculture, Govt. of India (Website: <http://www.dacnet.nic.in/eands>).

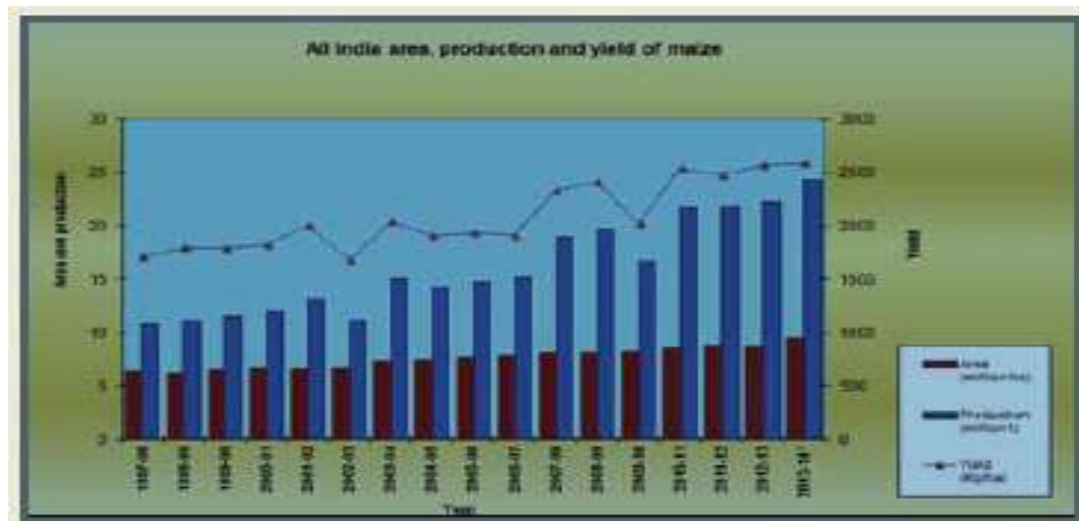


Table 1 represents the Area, Production and Productivity of Maize crop in India. The information in the table shows that there is a positive growth rate in maize production since 1997-98 to 2013-14. In the year 1997-98 the rate of growth of maize production in India was only 0.5 per cent, it grown upto 59.4 per cent in 2013-14. The area of cultivation of maize has been increased from 1.0 per cent in 1997-98 to 8.8 in 2013-14. Productivity of maize also improved lot since 1997-98.

Table 2
State Wise Maize Cultivation

State	Area (Mn Hectares)	Production	Productivity
Karnataka	1.3	4.4	3.5
Rajasthan	1.1	2.1	1.8
Madhya Pradesh	0.8	1	1.2
Maharashtra	0.9	2.6	2.9
Andhra Pradesh	0.7	4	5.3
Uttar Pradesh	0.8	1.1	1.5
Bihar	0.6	1.4	2.2
Gujarat	0.5	0.8	1.6
Tamil Nadu	0.2	1	4.5
Others	1.5	3.3	2.1
All India	8.6	21.7	2.5

Source: Directorate of Economics and Statistics, (2015), Department of Agriculture and Cooperation

State-wise Area, production and productivity of maize has been shown in the Table 2. Maize production is dominated by Andhra Pradesh and Karnataka, producing 38 per cent of India's maize in 2013-14. About 85 per cent of India's maize production is by Nine states such as Karnataka, Andhra Pradesh, Tamil Nadu, Rajasthan, Maharashtra, Bihar, Uttar Pradesh, Madhya Pradesh and Gujarat and 80 per cent of area under cultivation.

Problems of Maize Production

According to producers report, factors that hindered the production of maize were identified. Major constraints of irregular rain, high cost of fertilizers and improved seeds, and delay in inputs.

Rain: Natural factors such as drought and flood are often beyond the control of farmers and supportive institutions. Due to shortage of water maize yield reduced if water deficit occurs during the critical growth stages from tassel to grain.

High cost of inputs: For higher yield of maize both physical and non-physical inputs are important. Primarily producers used improved seeds, fertilizers, pesticide/herbicides and labor with equal concern of services like research, extension service and technology dissemination from governmental and nongovernmental institutions. But those inputs are utilized in inappropriate amount by most producers due to its expensiveness and less supply in the market.

Late arrival of inputs: Since agricultural products are seasonal all useful inputs need early arrangement to boost the production by applying inputs on the right time. But the producers complain delay in the supply of improved seeds and fertilizers.

Opportunities of Maize Production

Favorable land, climatic condition and high productivity potential are good opportunity of production in India. Maize is considered as the main cash crop and food source for the farmers in many small and medium farmers of India. This opportunity enabled farmers to produce this commodity for commercial purpose. Thus, these situations increased the production volume.

Throughout time increased institutional support to production of maize by government bodies, research centers and nongovernmental organizations is observed. Government via its researchers and district agents' intervention increased correct use of inputs (fertilizers, seeds and chemicals) and organized trainings on business development to improve their role in production and marketing. Non-profitable institutions also play a great role in conducting researches, organizing trainings on business development strategies and post-harvest management.

Conclusion

The importance of maize lies in its wide variety of applications besides serving as human food and animal feed. It is a source for a large number of industrial products - maize corn, corn starch, corn oil, baby corn, popcorn, dairy feed, poultry feed, piggery, agro-industries, and so on. The huge potential for exports has added to the demand for maize all over the world. Maize is now widely cultivated around the world including India, and a greater weight of maize is produced each year than any other grain. However, in India the maize cultivating farmers have been facing many problems along with different opportunities.

Reference

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