

The Changing Scenario of World and India's Maize Production: A Glance

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ABSTRACT

In Indian economy nearly 58 percent of people depend on agriculture in 5.75 lakh villages. As population of India is excess she has to produce achieve self-sufficiency in food grains on one hand and raising the level of income of the farmers on the other. India is known for variety diversity. Maize is one of the important crops which helps in attaining goal of self-sufficiency in food and increasing the level of income of the farmers. Maize is grown in about 160 countries in about 179 million hectares of land. Maize is of different types such as Sweet corn, Pop corn, Field corn, Indian corn, Baby corn, etc. Maize is rich in nutritional values. For attaining self sufficient in food production and meeting variety of needs the production of maize is quite essential. In the eave changing world's and India's scenario of area under cultivation and production of maize, the detailed look about the same is needed. Hence the paper made an attempt to bring out the hidden facts related to maize. The paper has been divided into introduction, Objectives, Methodology, World Scenario, Indian Scenario, Area, Production, Annual Growth Rate, etc.

KEY WORDS: *Achieve, diversity, nutritional, scenario, self-sufficiency*

INTRODUCTION

In Indian economy nearly 58 percent of people depend on agriculture in 5.75 lakh villages. As population of India is excess she has to produce achieve self-sufficiency in food grains on one hand and raising the level of income of the farmers on the other. India is known for variety diversity. Variety of food grains, vegetables, fruits, other edibles are produced. Maize is one of the important crops which helps in attaining goal of self-sufficiency in food and increasing the level of income of the farmers. Maize is an important food grain crop grown in a short duration so; it fits well in the cropping pattern of the farmers and brings high returns per acre. Maize is most resourceful food crop grown in diverse ago-climatic conditions of the world. As maize has the highest inherited yield potential among all the cereals, it is known as queen of cereals. Mainly, Maize is rain fed kharif crop grown in both in Kharif and Rabi season. Maize is grown in about 160 countries in about 179 million hectares of land and yield stood at 5.7 metric tonnes per hectare(2016-17). Out of total food grains production maize includes nearly 782 million tonnes i.e. In other words 36 percent of the total food grains production contains of maize only. Maize is of different types such as Sweet corn, Pop corn, Field corn, Indian corn, Baby corn, etc. Maize is rich in nutritional values. It is rich in proteins, contains starch, oil. calcium,

potassium, Zinc, Iron, Selenium, Maganese, Magnesium, etc. Also it contains sodium and protein, Vitamins like A, C and E which are necessary for good health of human beings. Maize is used agriculture, scientific researches, genetics and nutrition, etc.

Maize flour is used for making baked products and bread, Cornstarch made of maize kernels is used in soups as it acts as thickening agent, Corn syrup is used as an alternative of sugar in preparing products like candy, cookies, etc. , Kitty litter, etc.

OBJECTIVES

1. To study the world scenario of area under maize cultivation, production and productivity of maize
2. To understand the peculiarities of maize
3. To know the advantages of the production of maize
4. To evaluate the need for increasing maize production

METHODOLOGY

DATA BASE

The study is based on secondary data. The required secondary data has been collected from published sources, books, journals, web pages, etc.

PRODUCTION OF MAIZE

Maize, because of its diverse quality and use is called as queen of cereals. It is a flexible crop which can be grown in different agro-climatic condition. Hence it is grown in 160 countries. In most of the developing countries it is grown as food grain.

WORLD SCENARIO OF PRODUCTION CONSUMPTION OF MAIZE

Globally Maize is grown in about 160 countries in about 179 million hectares of land and yield stood at 5.7 metric tonnes per hectare (2016-17). US, China, Brazil, EU-27, Argentina, Ukrain, Mexico, India, Canada and South Africa are the top ten maize growing nations in the world. The United States ranked first and India ranked eighth in the world in maize production. Out of total production of Maize America only produces 35 percent. United States produced 384,778 thousand tonnes of maize in the year 2016-17 and ranked first and Nigeria produced 7200 thousand metric tonnes and ranked 15th in the world. India produced 24,500 tonnes and China produced 219,554 tonnes in the same year. China ranked second in the maize production in the world. The global consumption of maize was estimated to 26,123 thousand metric tonnes in 2016/17.

Of the total production of maize, 47 percent goes to poultry, 20 percent goes to direct consumption, 14 percent goes to cattle feed, 12 percent goes for making of starch and 7 percent goes to food processing.

Earlier Brazil was maize importer turned as maize exporter. USA, Brazil, Argentina, Ukrain, Russia and European Union are the main exporters of maize and Japan, Mexico, European Union, South Korea, Egypt, etc are the main importers of maize. The following table gives the details about the production of maize by different countries.

World's Maize Production Scenario in 2016-17

Sl No.	Country	Maize Production (in thousand metric tonnes)
1	United States	384,778
2	China	219,554
3	Brazil	86,500
4	European Union	60,309
5	Argentina	36,500
6	Ukraine	28,000
7	Mexico	26,000
8	India	24,500
9	Russia	15,500
10	Canada	13,200
11	South Africa	13,000
12	Indonesia	10,200
13	Philippines	7,900
14	Serbia	7,500
15	Nigeria	7,200

Source : <https://apps.fas.usda.gov>

INDIAN SCENARIO

India Maize occupies important place in Indian agriculture. It is not only used as human food but also used as raw material in the industries.

STATE WISE AREA UNDER MAIZE CULTIVATION IN INDIA

The following table gives detailed state wise picture of facts related to maize cultivation.

State Wise Area Under Maize Cultivation in India

State	Area Covered (in Hectares) 2016	Area Covered (in Hectares) 2015	Annual Growth Rate	Season Area (Last Five Years (Average))
Andhra Pradesh	1200	3300	(-) 63.6	8,31,000
Arunachal Pradesh	32,000	--	--	39300
Assam	22,000	24000	(-) 8.3	23400
Bihar	1,34,000	--	--	2,62,100
Chattisgarh	500	--	--	1,09,400
Gujarat	--	50,900	--	3,63,400
Haryana	12,000	5,000	140	9,000
Himachal Pradesh	1,34,000	1,50,000	(-) 10.7	2,94,000
Jammu & Kashmir	1,33,000	1,55,000	(-) 14.2	3,06,100
Jharkhand	15,000	--	--	2,34,500
Karnataka	3,95,000	2,40,000	64.6	11,93,000
Maharashtra	6,100	62,400	(-) 90.2	7,40,800
Odisha	14,000	2,400	483.3	96,700
Punjab	57,000	54,000	(-)5.6	1,28,800
Rajasthan	200	1,31,900	(-) 99.8	9,93,700
Tamil Nadu	2,100	2,800	(-) 25.0	1,74,000
Telangana	1,00,000	1,94,000	(-) 48.5	4,61,500
Uttar Pradesh	8,000	89,000	(-) 91.0	7,06,000
Uttarakhand	5,000	12,000	(-) 58.3	26,700
West Bengal	6,000	5,000	20	39,200
Others	75,200	1,26,900	(-) 40.7	1,57,400
Total	11,52,300	13,08,700	(-) 12.0	73,50,000

Source: Ministry of Agriculture, GOI.

PRODUCTION

India ranks 8th in the world with the production of 24,500 thousand metric tonnes of maize every year. Against the world average production of maize India's average production per hectare is low and is less than half i.e 2.5 metric tonnes. Annually India produces 10 million tonnes of maize in 6 million hectare of land. The produced maize is domestically used for food and exports are negligible in India. Production of maize in India depends on southwest monsoon. Three-fourth of the maize is being produced in Kharif season and rest in Rabi and Summer seasons. Due to poor rainfall in 2015-16, the production of maize in Maharashtra, Rajasthan, Gujarat, Karnataka, Andhra Pradesh and Telangana decreased. In 2014-15 kharif season, India produced 17.01 million tonnes of maize which decreased to 15.5 in 2015-16.

Maize production in India achieved an important break, for the year 2004-05 with the yield 1887 kg / ha in the country, it was 4.4 million hectares. In 1960-61 this increased to 7.5 million hectares in 2004-05, unlike the area under Maize, its production and yield have increased considerably during the same period total production of maize during 1960-61 was 4.1 million tones and it increased to 14.1 million tones during 2008-09 area million hectares in 8.9 and production in 16.2 million tones. And yield kg / hectares in 2220 kg an increase in yield is also noticed.

CONSUMPTION OF MAIZE IN INDIA

In India, growing population is increasing demand for food on one hand and demand for fodder for cattle is increasing. In our country 30-40 percent of animal feed is made of maize. Maize is also used for food, feed, extracting oil, etc., the demand for maize is progressively increasing. The India's total consumption of maize was projected to 22800 thousand tonnes for the year 2016-17. Totally 80 percent maize produced is domestically consumed of which 47 percent poultry industry, 13 percent livestock sector, 12 percent starch manufacturers and 8 percent food industries use maize and remaining 20 percent is exported.

. According to Ashok Gulati, Chair Professor of Agriculture at Indian Council for Research on International Economic Relations, "Maize production has the potential to double in the next ten years provided we keep our focus on increasing productivity and keeping markets open for exports". Directorate of Maize Research, the Agriculture Ministry, estimates that the area under hybrids will go up to 90 per cent by 2050.

CONCLUSION

In Indian economy nearly 58 percent of people depend on agriculture in 5.75 lakh villages. Maize is grown in about 160 countries in about 179 million hectares of land. Maize is of different types such as Sweet corn, Pop corn, Field corn, Indian corn, Baby corn, etc. Maize is rich in nutritional values. For attaining self sufficient in food production and meeting variety of needs the production of maize is quite essential. There is need for increasing the production of maize because of its peculiar features and growing need for food in India.

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