

# Wheat: 60% of the daily diet of common man in Pakistan

by Prof. Dr. Noor Ahmed Memon, Dean FBMS; Metropolitan University, Karachi.

Agriculture is the lifeline of Pakistan's economy accounting for 19.5% of the gross domestic product, employing 42.3% of the labour force and providing raw material for several value-added sectors. It thus plays a central role in national development, food security and poverty reduction. The rapid growth of Pakistan's urban areas indicate that demand for high-value perishable products such as wheat, rice, fruits, vegetables, dairy, and meat is rising.

Government is focusing to increase the yield for rural growers through major infrastructure investments including reliable transport networks and other building blocks for modern supply chains. CPEC will go a long way in the enhancement of agribusiness benefits by tapping value-added product innovation and supply chain.

Wheat is the major staple food crop in Pakistan and cultivated on the largest acreages. Its importance is evident as it constitutes 60% of the daily diet of common man in Pakistan. With per capita consumption of about 125 kg it occupies a central position in agricultural policies of the government.

Wheat accounts for 9.6% of the value added in agriculture and 1.9% of GDP of Pakistan. During 2016-17, sown on an area of 9,052 thousand hectares witnessing a decrease of 1.9% compared to 9,224 thousand hectares during same period last year. Wheat production was

Area, Production and Yield of Wheat						
Year	Area		Production		Yield	
	(000 Hectares)	% Change	(000 Tonnes)	% Change	(Kgs/ Hectares)	% Change
2009-10	9132	--	23,311	--	2,553	--
2010-11	8901	-2.5	25,214	8.2	2,833	11.0
2011-12	8650	-2.8	23,473	-6.9	2,714	-4.2
2012-13	8660	--	24,211	--	2,796	--
2013-14	9119	6.2	25,979	7.3	2,824	1.0
2014-15	9204	0.1	25,086	-3.4	2,726	-3.5
2015-16	9224	0.2	25,633	2.2	2,779	1.9
2016-17	9052	-1.9	25,750	0.5	2,845	2.4

Source: i) Pakistan Economic Survey 2016-17.  
ii) Pakistan Bureau of statistics.

estimated at 25.750 million tonnes during 2017 witnessing an increase of 0.5% over the last year's production of 25.633 million tonnes.

In Pakistan, wheat is grown in different cropping systems, such as; cotton wheat, rice wheat, sugarcane wheat, maize wheat, of these, cotton-wheat rice-wheat systems together account about 60% of the total wheat area whereas rain-fed wheat covers more than 1.50 million hectares area.

Historically, wheat production in Pakistan can be divided into three distinct periods: 1947-65, prior to the release of semi-dwarf wheat; 1966-76, the Green Revolution" period when High were rapidly adopted on about two thirds of total wheat area; and 1977 to date, post green

revolution period in which HYVs with disease resistance continued to cover the major wheat area through coordination effort at national level. The production due to better supply of inputs which contributed in enhancing per hectare yield, Wheat area, production and yield during the last 8 years are given in **Table-1**.

According to agriculture experts, intensive cropping leads to the depletion of soil nutrients, hence there is a need to replenish the soil through proper use of fertilizers to increase crop production and meet the food demand of the growing population. Fertilizer industry needs government's support in providing food security to over 200 million people of Pakistan. Pakistan ranks among top 10 agrarian countries of the world. Some 67% of the country's population, residing

in rural areas, is directly or indirectly dependent upon agriculture for their livelihood. This brings to the fore the need for sustained supply of quality fertilizer to the farming community at affordable cost so that Pakistan could increase per acre yield to levels already achieved by many other countries.

This challenge can be met only when fertilizer industry is allowed a level playing field vis-à-vis other sectors and gas distribution is done to all on a judicious and justified basis with focus on the country's future. Unfortunately, over the years, Pakistan's fertilizer sector has been suffering due to the shortage of gas which is essential raw material for the production of urea fertilizer. Short supply of gas has resulted in idle-capacity, restricting local urea production.

Against an annual local demand for 6.0 million tonnes, Pakistan's fertilizer industry has a cumulative installed capacity of producing 6.9 million tonnes, but due to short supply of gas only 4.0 million tonnes is being produced for the last couple of years. The country has been meeting the deficit by importing urea fertilizer at high cost.

### Would Wheat Scenario

Wheat is the most important grain and a staple food for more than one third of the world population. It offers ease of storage and can be converted to flour for making edible foods. It is a great source

of carbohydrate and proteins. Its world trade is greater than all other crops combined. Red and white wheat are the most common forms of wheat grown in the world.

It is sown on 220 million hectares around the world with 564.6 million tonnes production, an average of 2500 kg grain per hectare. China sown wheat on around 30 million hectares, followed by the Russian Federation; India, the USA, Australia, Canada, Turkey and

Pakistan. As far as the highest yield is concerned France in Europe produces 7200 kg per hectare as it has much longer growing season of winter wheat.

FAQ now puts world wheat output in 2016 at 704 million tonnes, an increase of 6.8% from the last year, which would imply more than full recovery from the previous year's reduction and bring world production to its highest level in history? By far, the bulk of the increase this year is expected to originate in Europe, as prospects remain favorable overall in the EU and outputs in the major producing CIS countries are forecast to rebound sharply from drought-reduced levels in 2012. The outlook is also positive in Canada, Australia and Argentina other major exporters and in most other wheat producing and consuming countries. The main exception is the United States, where wheat crop growth has been hindered by adverse weather conditions drought in particular this season. World

**Table 2: Largest Wheat Production Countries 2016-17 (000 Tonnes)**

Rank	Country	Production
1	EU	145,699
2	China	130,000
3	India	87,000
4	Russian Federation	72,529
5	U.S.A.	62,859
6	Australia	35,109
7	Canada	31,700
8	Ukraine	26,800
9	Pakistan	25,600
10	Turkey	17,250

Source: FAO

largest wheat producing countries 2016-17 are given in **Table-2**.

### Future prospects

Wheat is the most important grain and a staple food for more than one third the world populations. Pakistan made an important breakthrough last year by not only achieving self-sufficiency in wheat production, but by also being able to become a wheat exporting country. Among the wheat producing country, Pakistan stands at 9th place in terms of area 9.0 million hectares 59th in terms of yield and 25.7 million tonnes of production annually.



The production of wheat per acre differs from area to area and farm to farm as some allied and supporting factors have to be taken into account, while calculating yield. Weather and the availability of the irrigation water through canals also contribute to the yield.

The per-hectare yield of wheat has risen from 2,519 kg in 2005-06, to 2,845kg in 2016-17, showing an average growth of 234kg per hectare in last 10 years. This modest average increase in productivity does not reflect the actual yield growth obtained in certain wheat varieties,

In fact, the new wheat varieties have led to far higher yields per-hectare but lots of factors impact on the average national wheat yield including the scale on which new varieties are being used and their pre- and post-harvest care.

Some of these varieties are Sehar-06, Farid-06, Saasi-06, Khirman-06, Faisalabad-08, Mairaj-08, Lasani-08, Pirsabak-08, Hashim-08, Nia Amber-IO, Nia Sunehri-10, Millat-11, NARC-11, Punjab-11, AARI-11, Bharabi-11, Nia Sunder-11, Galaxy-11, Benazir-11, Nia Sarang-11, Pirsabak-11, Shahkar-11, Lalma-11, Pakistan 11 and Ujala-11.

But they point out that high-yielding, disease-resistant wheat varieties are not used effectively by all farmers. Only a fraction of them take proper care at each

step of wheat growing and harvesting. Sources in Parc say that in collaboration with CIMMYT international wheat and maize improvement centre, the local wheat research programmers are exploring varieties for not only higher yield but richness in nutrition value too.

Wheat crop demands an urgent need to accelerate its production in Pakistan either by increasing the area under cultivation or by enhancing the productivity per unit area through the adoptions of improved production technology. Wheat crop is grown in large irrigated and rain fed areas of the country. Pakistan is basically an agricultural country, where 60 % of the population depends direct and 16 % indirectly in agriculture. To feed a hundred million people, about 4.0 million farmers grow on 9.2 million hectares of wheat every year, representing 37 % of the total cropping area. The wheat crop is beset a variety of problems, reducing the yield to a national average of 2.8 t/ha. The most intractable of all the problems affecting wheat is that of weeds. As 37 species of harmful weeds grow in wheat field in different cropping systems; the most troublesome being Philtres minor, *Chenopodium album*, *Convolvulus arvensis*, etc.

New projections released by the United Nations say Pakistan is among six the 10 largest countries in the world

whose population has been projected to exceed 300 million by 2050.

At present, the country's population has been estimated to be around 200 million. By the year 2030 the population would be 244 million, and by 2100, Pakistan's population could be 364 million, according to the revised projections made United Nations in the report.

The situation depends on huge quantity of wheat grain to feed the population. The development of improved variety with high yield, good quantity and wide adaptation will fulfill the requirements and uniform the socio-economic conditions of the country in ground and forming community in particular.

To become self sufficient in wheat, Pakistan has all the required basic ingredients such as fertile land, sufficient irrigation water, hard working farmers, certified seed varieties of local and foreign origin and modern technology in abundance, provided these are utilized to full potential, which is only possible, if there is a firm will on the part of the planners.

### References

1. Agricultural Statistics, of Pakistan.
2. Pakistan Bureau of Statistics.
3. Trade Development Authority of Pakistan
4. Pakistan Economic Survey-2016-17, Ministry of Finance. ♦

