GROWTH PERFORMANCE OF WHEAT PRODUCTION IN SOUTH CHOTANAGPUR DIVISION IN THE STATE OF JHARKHAND

Vineeta Rani Ekka

Assistant Professor
University Department of Economics
Ranchi University, Ranchi

***Abstract*: Wheat (Triticum aestivum L.) is the world's most widely cultivated cereal crop. It finds a major place in both time meals of common population in major wheat growing states. In our country which produced only 5.6 million tons at the time of independence (1947-48) is now producing 92.46 million tons in an area of 29.62 million hectares (2012-13) with average productivity of 3.12 tons per hectare (Anonymous 2013). In plateau region of Jharkhand, wheat is grown as a second crop in sequence after kharif crops. At present wheat production in state faces large gap in potential and realized yield. In Jharkhand, wheat is grown in about 86341 hectares with production of 1.40 lakh tons. This paper has to analysed production in South Chotanagpur division in the state of Jharkhand.**

Keywords: Agriculture, Wheat, and Production

INTRODUCTION

Wheat is cultivated since pre-historic times in the worldFrom all available evidence, South Western Asia appears to be its region of origin. It is said that the Aryans introduced wheat to India, where it has been farmed ever since. It has been domesticated in China since 2700 BC, according to historical records, and it was also known to Egyptians and Swiss citizens as early as the Stone Age. One of the main meals consumed by people in northern India is wheat. The flour (atta) made from wheat grains is mostly eaten in the form of chapati or leavened bread. Hard wheat is used to make rawa, suji, and sewaya, whereas soft wheat is used to make chapati, bread, cake, biscuits, pastry, and other bakery items. In areas where rice is a staple food grain, wheat is also eaten in the form of puri etc. It is also used for making cakes and sweet meats etc. Wheat grain is used for preparing starch. Wheat straw is used as fodder, padding material and mulching material.

Wheat (Triticum aestivum L.) is the world's most widely cultivated cereal crop. In the major wheat-growing states, it occupies a significant space in both of the common population's meals. Wheat farming has been served as a metaphor for the green revolution, food self-sufficiency, and ongoing production. The nation, which produced just 5.6 million tonnes during the period of independence (1947–48), is today generating 92.46 million tonnes in an area of 29.62 million hectares (2012–13), with an average productivity of 3.12 tonnes per hectare (Anonymous 2013). This is due to technical advancement. India is the second-largest producer of wheat worldwide. The introduction of high yielding cultivars is largely responsible for this astonishing rise in productivity. The contribution of wheat is greatest due to its high adaptability, occupying late-sown and challenging locations brought on by the openness to technological innovation in eastern India's non-traditional rice producing region. Wheat continues to be better in terms of productivity, area, and adaptability to a variety of agro-climates. The nation has several problems, including population increase paired with shrinking arable land, dwindling water supplies, and climate change, so the success should not make us complacent. With limited chance of future expansion due to increased urbanisation, rising population increases demand for wheat.

Wheat is farmed as a second crop in Jharkhand's plateau region, following kharif crops. The state's wheat output now has a significant yield gap between its potential and actual yield. With a yield of 1.40 lakh tonnes, wheat is farmed in Jharkhand on an area of roughly 86341 hectares. The most important production parameters that affect productivity are wheat types and planting timing. Jharkhand's wheat season typically begins in November and lasts until the end of December, depending on the weather, topography, and harvesting of the previous crop. Wheat needs a desirable moisture level for improved growth and development when it is late seeded since it experiences low temperatures early on and high temperatures later in the growing season. One of the main causes of yield decline due to the rice-wheat farming combination is late wheat planting. Reduced grain output in Jharkhand is a result of late planting of wheat that was exposed to high temperatures during the reproductive stage. After harvesting the transplanted rice, over 80% of the wheat crop is sown in late conditions, and this problem will only become worse due to global warming. Even though post-anthesis heat stress causes wheat to produce poorly, wheat farming cannot entirely be

avoided. Therefore, by selecting suitable wheat varieties that can synchronise their temperature need, efforts should be made to reduce the effect of temperature difference induced by modified planting date.

OBJECTIVE OF THE STUDY

Objective of the study has to analyse growth of wheat production in South Chotanagpur division in the state of Jharkhand.

DATA AND METHOD

This study is based on the analysis with the help of secondary data on area, production and productivity of wheat in South Chotanagpur division in the state of Jharkhand. The data consider from 2015-16 to 2019-20 is used to analyze the area production and productivity of wheat in South Chotanagpur division in the state of Jharkhand.

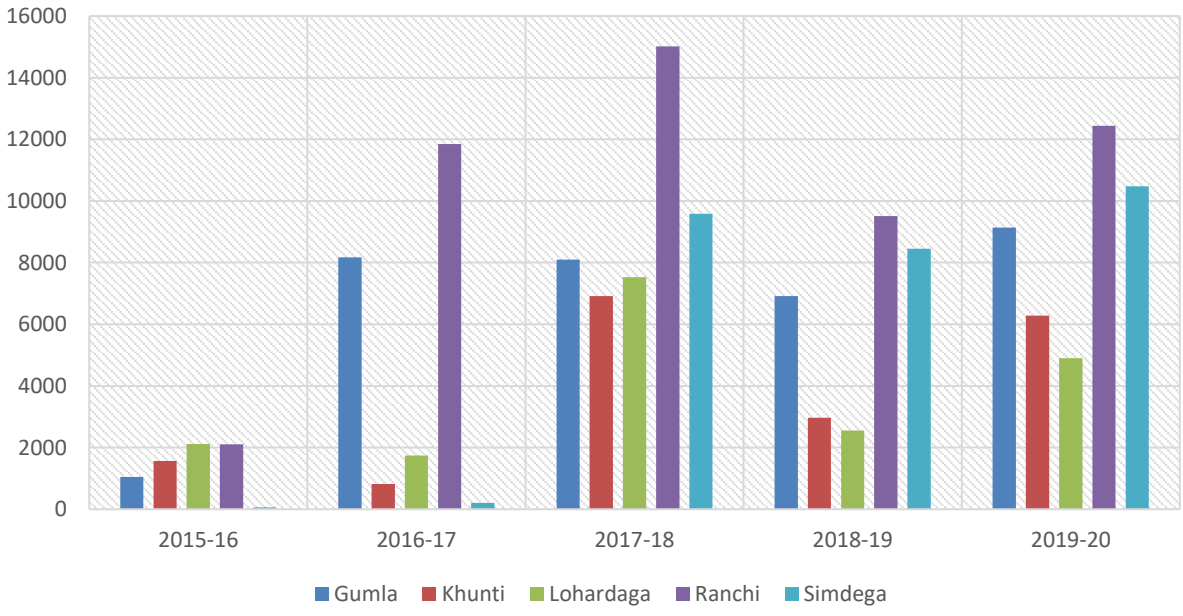
RESULT AND DISCUSSION

Table-01: Area of Wheat Production in South Chotanagpur Division (In Hectare)

	2015-16	2016-17	2017-18	2018-19	2019-20
Gumla	1047	8167	8100	6912	9138
Khunti	1564	815	6916	2971	6280
Lohardaga	2115	1743	7525	2556	4899
Ranchi	2107	11845	15012	9507	12435
Simdega	59	208	9585	8450	10477

Sources: Department of Agriculture Statistics, Government of India

Fig-01:Area of Wheat Production in South Chotanagpur Division



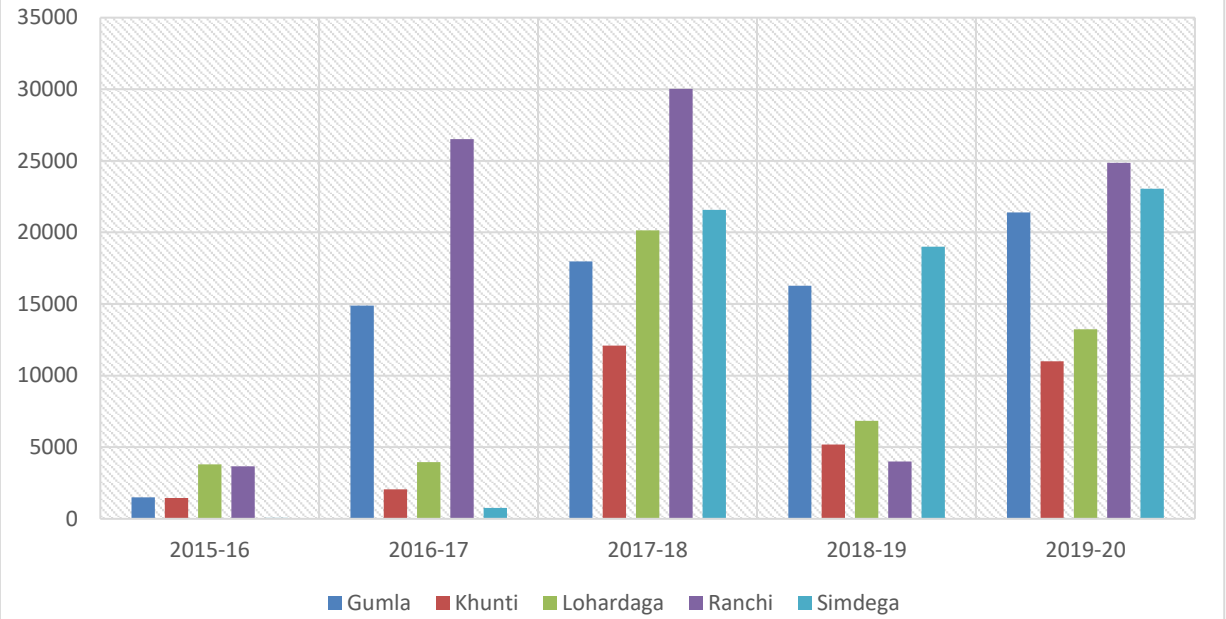
The above figure 01 shows the district-wise area of wheat production in Shouth Chotanagpur division in the state of Jharkhand during 2015-16 to 2019-20. If we analyse the area of wheat in the year of 2019-20 comparatively then 2015-16 then we found that the area in all district Gumla, Khuti, Lohardaga, Ranchi and Simdega district increases. The area in Gumla, Khuti, Lohardaga, Ranchi, and Simdega district were 1047, 1564, 2115, 2107, and 59 hectares in 2015-16 and in 2019-20 have 9138, 6280, 4899, 12435 and 10477 hectares respectively.

Table-02: Wheat Production in South Chotanagpur Division (Tonnes)

	2015-16	2016-17	2017-18	2018-19	2019-20
Gumla	1500	14896	17966	16271	21401
Khunti	1448	2053	12103	5199	10990
Lohardaga	3792	3951	20152	6845	13227
Ranchi	3675	26509	30024	4000	24870
Simdega	60	756	21566	19013	23049

Sources: Department of Agriculture Statistics, Government of India

Fig-02: Wheat Production in South Chotanagpur Division



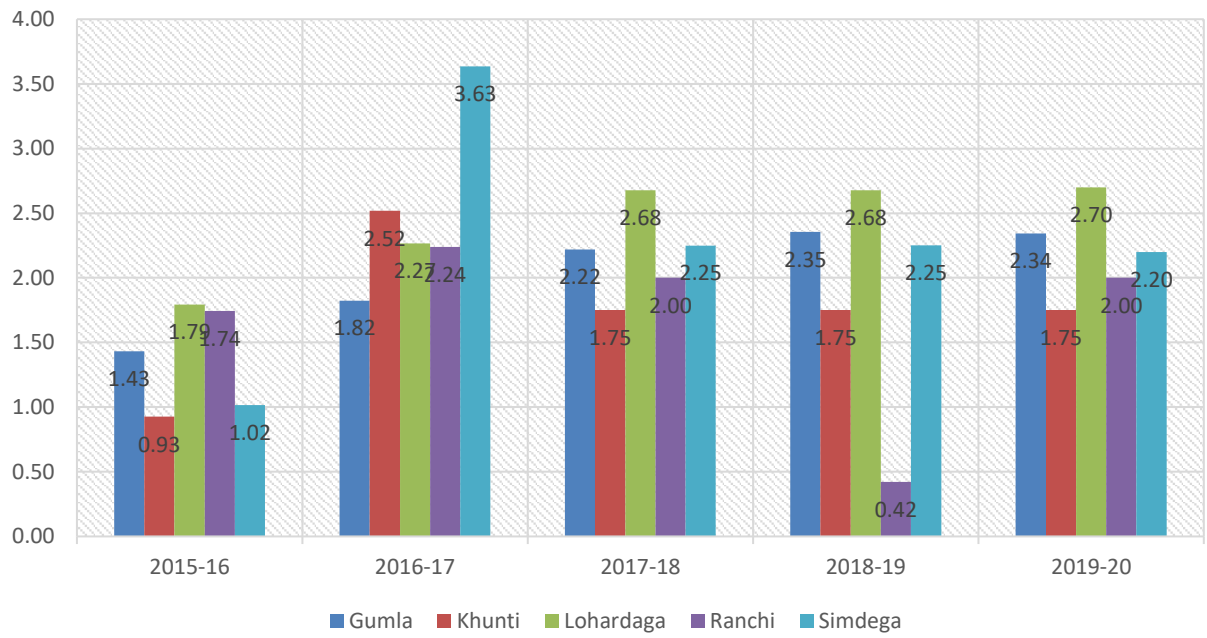
The above figure 02 shows the district-wise wheat production in Shouth Chotanagpur division in the state of Jharkhand during 2010-11 to 2016-17. If we analyse the wheat production in the year of 2019-20 comparatively then 2015-16 then we found that the production of wheat in all district Gumla, Khuti, Lohardaga, Ranchi and Simdega district increases. The production of wheat in Gumla, Khuti, Lohardaga, Ranchi, and Simdega district were 1500, 1448, 3792, 3675, and 60 tonnes in 2015-16 and in 2019-20 have 21401, 10990, 13227, 24870 and 23049 tonnes respectively.

Table-03: Wheat Productivity in South Chotanagpur Division (Tonnes/Hectare)

	2015-16	2016-17	2017-18	2018-19	2019-20
Gumla	1.43	1.82	2.22	2.35	2.34
Khunti	0.93	2.52	1.75	1.75	1.75
Lohardaga	1.79	2.27	2.68	2.68	2.70
Ranchi	1.74	2.24	2.00	0.42	2.00
Simdega	1.02	3.63	2.25	2.25	2.20

Sources: Department of Agriculture Statistics, Government of India

Fig-03: Wheat Productivity in South Chotanagpur Division



The above figure 03 shows the district-wise wheat productivity in Shouth Chotanagpur division in the state of Jharkhand during 2015-16 to 2019-20. If we analyse the wheat productivity in the year of 2019-20 comparatively then 2015-16 then we found that the yield of wheat in in all district Gumla, Khuti, Lohardaga, Ranchi and Simdega district increases. The yield of wheat in Gumla, Khuti, Lohardaga, Ranchi, and Simdega district were 1.43, 0.93, 1.79, 1.74 and 1.02 tonnes/hectare in 2011-12 and in 2019-20 have 2.34, 1.75, 2.70, 2.00, and 2.20 tonnes/hectare respectively.

Conclusion

Wheat (Triticum aestivum L.) is the world's most widely cultivated cereal crop. In plateau region of Jharkhand, wheat is grown as a second crop in sequence after kharif crops. At present wheat production in state faces large gap in potential and realized yield. In Jharkhand, wheat is grown in about 86341 hectares with production of 1.40 lakh tons. If we analyse the area of wheat in the year of 2019-20 comparatively then 2015-16 then we found that the area in all district Gumla, Khuti, Lohardaga, Ranchi and Simdega district increases.

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