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ESTIMATION OF THE ECONOMICS OF WHEAT FOR THE DIFFERENT SOWING DATES IN MANDHANA, KANPUR (UTTAR PRADESH)

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Abstract

Wheat is also known as 'king of cereals' wheat is the important cereal crops of Rabi season in Northern India. India contributes more than 30% in world wheat production (in India Punjab contributes 50-70 % to total wheat production in India). India stand second in wheat production next to China. Late sowing conditions, wheat face low temperature in earlier part & high temperature in the later part of the growing season & require favorable moisture for better growth and development. Late planting of wheat is one of the major reason of yield reduction in cropping system. In U.P Late planting of wheat expressed to high temperature at reproductive stage caused reduced grain yield. The study was conducted during Rabi season of 2018-19 at research farm of Faculty of Agricultural Sciences and Allied Industries, Rama University. The three varieties were selected Named HD-2867, PBW-502 & WH-711. The research was conducted on split Plot Design. The design have I treatment combination & 3 Replication. The gross plot size was 20 m^2 & Net plot size was 10.08 m^2. There are three dates for sowing of cultivar that is November 10, November 25th & December 10th respectively. The Crop sown on 10th Nov. gave highest net return & benefit cost ratio followed by 25 Nov. and 10 Dec. sown crop respectively. Variety HD-2967 produced significantly higher grain yield (Q/Hac.) than other varieties. Variety HD-2967 gave highest net return and benefit Cost ratio as compared to PBW- 502 & WH-711.

Keywords- Sowing Date, Wheat, Economics, Rabi Season, Variety, Production, Cost of Cultivation, Benefit Cost ratio.

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Introduction

Wheat (*Tritium aestivum* L.) is a important food crop of Graminae (Poaceae Family). It is the world's largest Cereal crop. Wheat is also known as 'king of cereals' wheat is the important cereal crops of Rabi season in Northern India. India contributes more than 30% in world wheat production (in India Punjab contributes 50-70 % to total wheat production in India). India stand second in wheat production next to China. Area under wheat crop in India is reported 30.79 M.hac with production 98.51 MT during 2016-17. Wheat contributes about 25% of the total food grain production of the country. In U.P, wheat is grown in about 9883.9 thousand Hectare area with production of 34971 MT & productivity of 35.38 q/Hectare (SAD, 2017).

Various factors like soil, climate, water etc affect the production of wheat among production factors, sowing time & wheat varieties are the most crucial factors deciding it's productivity. Late sowing conditions, wheat face low temperature in earlier part & high temperature in the later part of the growing season & require favorable moisture for better growth and development. Late planting of wheat is one of the major reason of yield reduction in cropping system. In U.P Late planting of wheat expressed to high temperature at reproductive stage caused reduced grain yield.

❖ Materials & Methods: -

The study was conducted during Rabi season of 2018-19 at research farm of Faculty of Agricultural Sciences and Allied Industries, Rama University.

The experimental farm falls under the Indo-gangetic alluvial tract of central Uttar-Pradersh. The seasonal rainfall of about 629.5 mm received mostly from IInd fortnight of June or First fortnight of july to mid October with a few showers in winter season. The maximum & minimum temperature in the Rabi seasons. Usually occurs 35^{o} C and 10 ^{o} C respectively. The three varieties were selected Named HD-2867, PBW-502 & WH-711. The research was conducted on split Plot Design. The design have I treatment combination & 3 Replication. The gross plot size was 20 m^2 & Net plot size was 10.08 m^2. There are three dates for sowing of cultivar that is November 10, November 25th & December 10th respectively.

❖ Result & Discussion: -

The highest Net return (Rs. 485757 p/ Hac^{-1}) and benefit cast ratio (2.42) was obtained in HD-2967 followed by PBW-502 (Rs. 81225 Hac^{-1} aw B:C ratio 2.30) and WH-711 (Rs. 77657.00 Hac^{-1}) & B:C ratio 2.19).

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***Effects of different dates of sowing in economics (Rs./Hac.) of Wheat**

Treatments (Date of Sowing)	Common Cost of Cultivation (Rs/Hac)	Gross Return (Rs./Hac)	Net Return (Rs./ Hac.)	B:C Ratio
10 November	35379.00	120017.00	84638.00	1:2.39
25 November	35379.00	116155.00	80776.00	1:2.28
10 December	35379.00	114611.00	79232.00	1:2.24

***Effects of Cultivators in economics (Rs./Hac.) of Wheat**

Cultivators	Common Cost of Cultivation (Rs/Hac)	Gross Return (Rs./Hac)	Net Return (Rs./ Hac.)	B:C Ratio
HD-2967	35379.00	121136.00	85757.00	1:2.42
PBW-502	35379.00	116604.00	81225.00	1:2.30
WH-711	35379.00	113036.00	77657.00	1:2.19

❖ Conclusion

The Crop sown on 10th Nov. gave highest net return & benefit cost ratio followed by 25 Nov. and 10 Dec. sown crop respectively. Variety HD-2967 produced significantly higher grain yield (Q/Hac.) than other varieties. Variety HD-2967 gave highest net return and benefit Cost ratio as compared to PBW- 502 & WH-711.

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