

## STUDIES ON THE VARIATION OF DRY MATTER, DIGESTIBLE CRUDE PROTEIN AND TOTAL DIGESTIBLE NUTRIENT INTAKE BY BUFFALOES IN DIFFERENT SEASONS OF THE YEAR AT LAKHIMPUR KHERI DISTRICT, UTTAR PRADESH

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**ABSTRACT :** The present survey will be carried out during the different seasons (Viz. summer, rainy, autumn, winter and spring) of the year (2019-2021). Buffaloes are randomly selected from ten villages covering five blocks of district Lakhimpur (kheri). Each block contains two villages and each village selected in 25 farmers and farmers selected on based size of land holding capacity viz. Landless farmers (landless), Marginal Farmers (< 1.00 hectare), Small Farmers (1.00-2.00 hectare), Medium Farmers (2.00-4.00 hectare) and Large Farmers (4.00- 10.00 hectare). The results was find out the According to the seasons, the spring season had a higher DMI than the summer, rainy, autumn, and winter seasons and the small farmers had the highest DMI (i.e., 14.37) in the summer season, followed by medium, landless, marginal, and large farmers. Large (14.22) and medium (14.22) farmers had the highest DMI during rainy seasons, followed by landless, marginal, and small farmers. During the autumn season higher DMI Landless (14.18) followed by large, small, medium and marginal farmers. During the winter months, it was greater among marginal farmers DMI (i.e., 13.60) compared to the other groups (landless, large, small, and marginal). During the spring seasons, the landless group had the highest DMI (14.18), followed by large, small, medium and marginal farmers' category, the shows DCPI in buffaloes. Seasonally, fall had a higher DCPI than winter, spring, rainy season and summers. Summers show a higher DCPI (0.55) for marginal farmers than for large, medium, landless, and small farmers. Landless and medium farmers (i.e., 0.545 and 0.540), after marginal, small, and large farmers, had greater yields during the rainy season. The DCPI (i.e., 0.78) of all the farmer's categories except the marginal category (i.e., 0.76) was the same (i.e., 0.78) in winter than small DCPI (0.86) Following large, landless, medium, and marginal farmers groups highest DCP intake in the autumn season, while in the spring, a DCPI of 0.69 was found in all the types of farmers and the TDNI in buffaloes that have been bred for milk. The rainy season, which comes after the other four seasons of summer, autumn, spring, and winter, had the highest level. A greater TDNI was found for small farmers (i.e., 7.55) during the summer season, followed by marginal, landless, medium and large farmers. This group (i.e., 7.19 farmers) had the highest TDNI in winter, followed by the large, medium, small and landless farmer categories. After large, marginal, and small (i.e., 7.48, 7.27 and 7.37) and medium farmers, the rainy season had the highest TDNI intake in the autumn season landless (i.e., 7.65) group following large, small, medium and marginal farmers, and the highest TDNI intake in the spring season, in landless farmers (i.e., 7.36) followed by small, large medium and marginal categories of farmers.

**Key words :** Buffaloes, dry matter, digestible, crude protein nutrient, intake variation, Lakhimpur Kheri, different season and year.

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### INTRODUCTION

Livestock plays an important role in Indian economy. Livestock provides livelihood to two-third of rural community and about 20.5 million people depend upon livestock for their livelihood. Livestock sector contributed 16 percent to the income of small farm households as against an average of 14 percent for all rural households which also provide employment to about 8.8 percent of

the population in country. The contribution of this sector is 4.11 per cent to total (GDP) and 25.6 per cent to total agriculture (GDP) (Basic animal husbandry statistics, DAHD&F, GOI.2019). Presently India is bestowed with a huge livestock population 535.78 million in which comprising of 192.49 million cattle, 109.85 million buffaloes, 148.88 million goats, 74.26 million sheep and 851.81 million poultry (20th Livestock Census, 2019).

between treatments, the microclimate had no statistically significant impact.

### CONCLUSION

The mean bodyweight of the buffaloes was significantly higher in large farmers compared to other categories in all seasons. The lowest average body weight was observed in buffaloes under landless farmers categories. As per seasons, the mean body weight was higher in winter and spring, following autumn, rainy and summer seasons. As per seasons, a higher DMI was observed in the spring season following the summer, rainy, autumn and winter season. In the summer season, a higher DMI was observed in small farmers following medium, landless, marginal and large farmers' categories. In winters, it was higher in marginal farmers following landless, large, small and the marginal farmers' categories. In rainy seasons, a higher DMI was observed in large and medium farmers categories, following landless, marginal and small farmers. In the autumn season, the landless category showed higher DMI following large, small, medium and then the marginal farmers' category, and in the spring season, marginal farmers showed higher DMI following small, large, landless and then the medium farmer category. As per seasons, a higher DCPI was observed in the autumn season following the winter, spring, rainy, and summers season. In summers, the data indicates a higher DCPI in marginal farmers following large, medium, landless and small farmer's categories. In winter, all the farmers categories showed similar DCPI except the marginal category, which showed low DCPI compared to others. In the rainy season, it was higher in landless and medium farmers, following marginal, small and large farmers categories. In the autumn season, the small category showed higher DCP intake following large, landless, medium and marginal farmers' categories, and in spring, a similar DCPI was observed in all the categories of farmers. As per seasons, it was higher in the rainy season following summer, autumn, spring and winter. In the summer season, a higher TDNI was observed in the small category, following marginal, landless, small and then the large farmers categories. In winter, the marginal category showed higher TDNI, following large, medium, small and landless farmers categories. Higher TDNI intake was observed in the landless category in the rainy season, following large, marginal, small and then the medium farmers categories. In autumn, a higher TDNI in landless farmers categories following large, small, medium and marginal farmers categories was observed and in the spring season, the landless category showed higher TDNI intake following small, large, marginal and then the medium farmers

categories.

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