# STUDY OF EFFICIENT CROPPING ZONE (ECZ) FOR MAJOR AUTUMN (RABI) CROPS IN HARIDWAR DISTRICT, UTTARAKHAND

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**Abstract:** There has been a significant indice in the RSI & RYI patterns of the crops distribution in the study region. The indices of crops area and yield calculated from district statistical data 2000-01 to 2018-19, the crop indices of the district have been calculated for major autumn season crops like wheat pea, lentils, potato, rapeseed & mustard, barley and wheat (Koshal & Kumar, 2015). The study was conducted to identify the efficient cropping zone of major crops for Uttarakhand. The data on cultivable area and productivity of twelve major crops for 2000-01 to 2019-20 were collected and indices such as Relative Spread Index (RSI) and Relative Yield Index (RYI) were computed and the potential cropping districts for the crops were identified. The results indicated that among the different districts in Uttarakhand, Dehradun, Nainital US Nagar were efficient cropping zone (ECZ). The three districts of Uttarakhand viz. Almora, Pauri Garhwal & Tehri Garhwal belong to HECZ for autumn crops. In some of the districts though RSI is low, RYI is high which indicates the suitability of that major crops. Market demand and value of the produce, suitability of the crop made farmers to cultivate in their location which relates in low RSI with high RYI.

Keywords: Efficient CroppingZone, Kharif crop, Autumn (Rabi) crop, Relative Spread index, Relative Yield index

#### REFERENCES

**Devasenapathy, P., Ramesh, T. and Gangwar, B.** (2008). Efficiency Indices for Agriculture Management Research. New India Publishing Agency, New Delhi. pp 146.

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**Chandra, S. Chandra, D., Pandey, R.K. and Khajuria, A.** (2020). Sari System: A Traditional Cropping Pattern of the Uttarakhand Himalaya. Microbiological Advancements for Higher Altitude Agro-Ecosystems & Sustainability. Springer Nature Singapore Pte Ltd. pp.37-53.

Google Scholar Gajbhiye, K.S. and Mandal, C. (2000). Agro-Ecological Zones, their Soil Resource and Cropping Systems. Status of Farm Mechanization in India. pp 1-32.

#### **Google Scholar**

Kanwar, J. (1972). Cropping patterns, scope and concept, In. Proc. Symp, on Cropping Pattern in India, ICAR, New Delhi, 11–32.

Koshal, A.K. and Kumar, S. (2015).Seasonal coverage analysis of spatio-temporal satellite data of India. *Journal of Plant Development Sciences*, 7 (8): 619-630.

**Google Scholar** 

**Google Scholar** 

Koshal, A.K. and Kumar, P. (2016) Study of Spatio-temporal analysis of annual rainfall variability in Uttar Pradesh. *Journal of Plant Development Sciences*, 8 (3): 97-110.

#### **Google Scholar**

Sanbagavalli, S. Rohini, A., Ganesan, K. and Balasubramanian, T.N. (2002). Efficient cropping zones-decadal analysis for major crops in Tamil Nadu. I. *Jour. of Agri. Research*, 36(4): 227-233. Google Scholar

Singh, R. K., Kumar, H. and Singh, A.K. (2010). *Brassica* based intercropping systems - a review Agri. Review, 31 (4): 253 – 266.

**Google Scholar** 

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