# Cropping Pattern And Agricultural Productivity: A Case Study Of Banda District In Bundelkhand Region Of Uttar Pradesh 

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#### Abstract

Cropping pattern refers to the proportion of land under cultivation of various crops at a different intervals of time. Cropping pattern is one of the most important factor that decide agriculture production and help to enhance the agricultural productivity. This research paper represents the relationship between cropping pattern and agricultural productivity that how cropping pattern decides the productivity,


for this research paper secondary data is used from various sources of district Banda of Uttar Pradesh.

Key Words- Cropping Pattern , Agricultural Productivity, Proportion Of Land

The level of agricultural productivity, as a concept, means the degree to which the economic, cultural, technical and organization variables(i.e., the man made frame) are able to exploit the a-biotic resources of the area for agriculture production (Singh,1979).

Expressing production of agriculture in terms of grain equivalents per head of population (Buck,1967; E.de Vries,1967; Clark and Haswell, 1967).

## Study Area:

The district of Banda is located between latitude $24^{\circ} 53^{\prime}$ and $25^{\circ} 55^{\prime}$ north and longitude $80^{\circ} 07$ ' and 81³4' east at an elevation of 123 meter. It covers an area of 4408 square km. Banda is a backward economic region, low level of income, low level of urbanization, predominantly agricultural region. The climate of Banda district is characterized a long and hot summer, a fairly pleasant monsoon and cold season


Impact of changing cropping pattern on agricultural productivity- Any change in cropping pattern reflects the change in land used to grow different types of crops. There is direct relation between cropping pattern and agricultural productivity.

|  | $2010-2011$ (YEAR) |  |  |  | $2020-2021$ (YEAR) |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| CROP | AREA <br> (HEC.) | PRODUCTION- <br> METRIC TON | PRODUCTIVITY <br> TOTAL PRO./H. | AREA- <br> (HEC.) | PRODUCTIO- <br> METRIC TON | PRODUCTIVITY <br> TOTAL PRO./H. |
| WHEAT | 145680 | 264349 | 18.15 | 161837 | 454302 | 28.07 |
| BARLEY | 1208 | 2790 | 23.10 | 988 | 1502 | 15.20 |
| GRAM | 79872 | 50422 | 6.31 | 94201 | 110909 | 11.77 |
| PEA | 1727 | 1045 | 6.05 | 3322 | 4724 | 14.22 |
| RED <br> LENTILS | 36773 | 14525 | 3.95 | 33082 | 34240 | 10.35 |
| RAPESEED | 1958 | 1107 | 5.65 | 2670 | 2082 | 7.80 |
| UNSEED | 2253 | 1032 | 4.58 | 2595 | 1744 | 6.72 |
| TOTAL | 269471 | 335270 | 12.44 | 298695 | 609503 | 20.40 |

As shown in the table, productivity changes with changing
cropping pattern. Agricultural productivity in the year 2010-2011- Area under land cultivation was about 269471 hectares, and the total production during this time period is 335270 metric ton hence productivity in this area is 12.44 T.P./H. in which in the selected crops, wheat is dominating crop in the study region with 18.15T.P./H. The productivity of barley, gram, pea, red lentils, rapeseed, linseed were 23.10, $6.31,6.05,3.95,5.65,4.58$ total production per hectare(T.P./H.) respectively.

Agricultural productivity in the year 2020-2021- Area under land cultivation has increased from 269471 to 298695 hectares, productivity also increased from12.44 to 20.40. The productivity of all the crops during this period have increased. This can be observed from the given table.

## Conclusion-

It is mentioned in this research paper that cropping pattern is the proportion of area under various crops at a different time interval and it is clear now productivity changes with changing pattern of crops by given data. This has been calculated for the district of Banda. This data shows that productivity rely on the cropping pattern.

Agricultural productivity is affected by the government policies, technology, biotic and a-biotic factors. Review of aggregate cropping pattern and agricultural productivity in the district of Banda during the time period of 2010-2011 and 2020-2021 is presented in the table.

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