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COULD LAND UP IN YOUR PLATES IN NEAR
FUTURE**

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BLACK WHEAT: AN INNOVATION WHICH COULD LAND UP IN YOUR PLATES IN NEAR FUTURE

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As the population is increasing rapidly day by day so to meet the population needs and demands many types of chemicals are being used to speed up the developmental and reproductive stage of the crops, as a result of which there is a reduction in the nutritional value of the crop.

Wheat (*Triticum aestivum*) is one of the oldest cereal cultivated and consumed from centuries all over the world. It is the second most stable crop covering area of nearly 30mha in India and it also ranks second in area and production after rice.

Now a days, coloured wheat has gained more importance and can fight against different diseases as well as against malnutrition ,i.e., the major challenging issue in all age groups of people ;due to its multiple health benefits.

Black wheat is a variety of pigmented wheat developed by crossing purple and blue wheat, named ‘Nabi MG’ at National Agri-Food Biotechnology Institute (NABI), Mohali; by routine plant breeding method. It has got permission for human consumption by Food safety and standards authority of India (FSSAI) in June 2018. The black colour is due to the anthrocyenin content present in the outer layer of wheat grain. Black wheat

posses higher protein content, dietary fiber ,vitamins ,calcium, total flavonoid and total phenolic content, than the conventional yellow wheat. It has immense biological value and can become health improving food supplement. It has ability to combat and address global and national challenge of malnutrition.

BENEFITS OF BLACK WHEAT:

- **Nutritious:** On an average, black wheat bread contains 313 cal energy, 53 g carbohydrate, 6g of fat and 9g of protein per 100gm of serving. Black wheat chapatti is a better option for people who are allergic to wheat, suffering from digestive disorders because wheat protein ‘gluten’ triggers inflammation affecting soft tissue and organs of a body.

- **Stress:** In today’s time almost each and every person is more or less suffering from stress and as a result of which they take more medications which cause severe side effects in our body. So black wheat is a boon for people suffering from stress as researches revealed its effectiveness to tackle stress if added to our daily diet.

- **Obesity:** Many researchers have found very encouraging results of black wheat in controlling obesity due to its multiple health benefits.

- **Cancer:** It is a disease for which there is no permanent solution has been available yet. At this time black wheat has emerged as a better option in the form of food supplements as it helps in rejuvenating the affected cancer cells, reduces proliferation of cancer and inhibits tumor formation.

- **Diabetes:** It is one of the most spreading disease across the world which is not curable completely, so for this research has shown positive results on diabetes



patients due to its various health benefits. They can include it in their diet.

- Value addition: Black wheat flour can be used to make chapattis, biscuits, cookies, and breads.
- High market value: Due to its various medicinal quality it has got a high market value. Its seeds cost nearly Rs 100-170 per Kg, its flour nearly Rs 600 per Kg etc.

STATUS OF BLACK WHEAT IN INDIA:

Many farmers who are aware of the importance of black wheat have started cultivating in several states of India such as Punjab, Haryana, Uttar Pradesh, Chhattisgarh, Maharashtra, Madhya Pradesh and Bihar. In 2018-19, total area under black wheat cultivation was about 700 acres. At present Madhya Pradesh is the leading producer of common as well as of black wheat and cultivating about more than 300 acres of land. The black wheat seed are not available in market but one can get it from NABI or farmers who have cultivated in previous season. It has fetched higher price value due to its multiple health benefits.

BLACK WHEAT IN ODISHA:

Botanical scientist, Dibyaraj Beriha of Sambalpur has successfully cultivated black wheat for the first time in Odisha. He had procured the seeds from the Punjab University of Agriculture and had come out successfully in its field trial. He had cultivated this due to its medicinal quality as well as due its high demand and high market value.

CONSTRAINTS IN BLACK WHEAT PRODUCTION:

- It is low yielding and gives lower productivity (i.e., 45-50 q/ha) in

compared to common wheat which produces 55-60q/ha of grain yield.

- Unavailability of seeds to reach of common people.
- Due to lack of awareness among people about black wheat and its nutritional as well as health benefits.

CONCLUSION:

Black wheat is one of the most nutritious and healthier grain due to its nutraceutical properties when compared with the common wheat grain. As nowadays people are becoming more health conscious so it is necessary to improve immunity by consuming nutrient rich, low carb and protein rich diets. That's why supplementary intake of black wheat products might help in building resilience in body and boosting immunity. It can also be helpful during this covid pandemic situation by enhancing the immunity of covid patients. Black wheat should be added in National Nutrition Mission (NNM) or 'Poshan Abhiyaan' in developing the nutritional status of young children, adolescent girls and women. It has the ability to tackle under-nutritional problems such as malnutrition and improves the nutritional status of our country. As it has higher market value, farmers can fetch high prices of their produce than the cost of production. So therefore, there is need for adoption and utilization of such type of valuable products for improving the nutritional status of our country and to a live healthy life.