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A SUSTAINABLE DURUM WHEAT CHAIN
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“INDIAN DURUM WHEAT – ITS IMPORTANCE AND POTENTIAL FOR PASTA INDUSTRY”

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In India, an estimated of 1.5 to 2.0 million tonnes of durum wheat is produced annually. Dry and hot environment of central and peninsular parts of India viz., Madhya Pradesh, Gujarat, Maharashtra, Karnataka and Southern Rajasthan are suitable for durum cultivation. Best quality durum wheat with excellent appearance, good hecto-litre weight, high protein and less yellow berry incidence is predominantly produced in the Malwa plateau of Madhya Pradesh due to longer grain filling period and short vegetative growth in the region. Its grain density, combined with high protein content (>12.5%), <10% yellow berry incidence and >7.0 ppm β -carotene content and gluten strength, make durum the wheat of choice for producing premium semolina, which is being used in making Indian recipes viz., rava-dosa/macaroni/ noodles/snack foods etc. With the rising demand for speciality foods like pasta in India and other countries, the market for durum wheat is growing at an exponential rate. Intensive research and development efforts made by Regional Research Station, Indore of ICAR-Indian Agricultural Research Institute brought the durum wheat back into cultivation in Central India with very high yield potential. With intensive popularization of newly evolved high yielding and rust resistant *durum* varieties viz., HI 8627, HI 8663, HI 8713, HI 8737 and HI 8759 etc., with a yield potential of > 50 q/ha and their “low-cost cultivation technology”, durum wheat production in Madhya Pradesh improved significantly leading to the declaration of the state as “Agri-Export Zone (AEZ)” for durum wheat also. Recently, multi-national food companies in India are utilizing Indian durum wheat, which is comparable with its Canadian and Australian counterparts in terms of quality for processing rather than depending on the imports. The pasta industries are looking for more hectolitre weight & hardness to have better extraction rate (~ 68-72%), high protein (~13%), less black tip and dark crease, freedom from yellow berry and Karnal bunt for good finishing of pasta products. Compared to bread wheat, higher heat tolerance of durums ensures higher yields with lesser irrigation. Modern durum varieties are generally resistant to currently prevalent and bread wheat virulent rust pathotypes, and thus, have been contributing to arrest the spread of wheat rusts in the country. Thus, it is an ideal wheat to be grown in Central and Peninsular parts of the country for “ensuring food and nutritional security”, increasing employment opportunities through fast food industry and sustainability. Increasing global demand, value addition potential, resistance to diseases, better market price are some of the key factors which make Indian durum wheat an export commodity as well as capable of catering to Indian market. It has an export potential similar to basmati rice. The potential markets for Indian durum can possibly be countries in Middle East, Mediterranean region and Africa after catering the huge demand in Indian markets. An awareness campaign is, therefore, urgently required for the growers, traders and consumers about the importance of durum wheat as high economical crop and for use as “Health Food”.

ABSTRACT