

Resilient Blackgram for Drought mitigation and food security: A success story of Mr. Parpa Simthar Chothe

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Drought is defined as deficiency of precipitation over an extended period of time resulting in water scarcity. It is a weather-related natural disaster. It affects vast regions for months or years. It has an impact on food production and the economic performance of large regions or entire countries. Our best minds should be concentrated where the greatest challenges lie today – on discoveries and new solutions to cope with the challenges facing dry areas particularly drought and water scarcity. Drought is a climatic event that cannot be prevented, but interventions and preparedness to drought can help to: (i) be better prepared to cope with drought; (ii) develop more resilient ecosystems (iii) improve resilience to recover from drought; and (iv) mitigate the impacts of droughts.

Rain deficit has affected crops in over 70 blocks of the Manipur state over the past few years. Villages that have witnessed crop failures ranging between 33 per cent and more than 50 per cent have been categorized as moderately and severely affected. Chandel district of Manipur is also one among the district facing drought like situation and many paddy fields were left unsown due to water scarcity.

In addition to facing severe natural resource constraints caused by the lack of water in many of the districts of Manipur and to cope with drought and water scarcity, ICAR-Krishi Vigyan Kendra, Chandel has distributed the Blackgram seeds variety PU-31 under Cluster Frontline Demonstration, sponsored by National Food Security Mission in drought affected areas where transplanting of rice was not possible.

Black gram is one of the most important pulse crops grown throughout India. It is consumed in the form of 'dal' (whole or split, husked and un-husked) or perched. It is used as nutritive fodder especially for milch animals. It is also green manuring crop. High values of lysine make urdbean an excellent complement to rice in terms of balanced human nutrition. However, cultivation of Blackgram in Chandel was not so popular until ICAR-KVK, Chandel intervention; this could be due to lack of

production technology and also unavailability of suitable cultivars for Manipur conditions. After observing the suitability of the conditions and situations, ICAR-KVK Chandel intervened to popularize the cultivation and production technology of blackgram var. PU-31 which is a high yielding and suitable for Manipur condition. Blackgram var. PU-31 is a bold seeded, short duration variety (75 days), tolerant to Yellow Mosaic Virus with a potential yield of 12.5 q/ha.



Fig. 1. Field photo of Blackgram var. PU-31, and photo of Field Day

The paper presents the success story of an innovative farmer where impact is demonstrated to cope with drought and contribute to food security in dry areas.

Mr. Parpa Simthar Chothe aged 54 years resident of Chandropoto village, Chandel District adopted the improved technologies for production of blackgram, transferred by the ICAR-KVK Chandel staffs through training, demonstrations, and method demonstrations. Mr. Parpa Simthar Chothe cultivated blackgram var. PU-31 in two (2) hectares of land, when his paddy field was affected by drought, and could not transplant the paddy due to unavailability of water. In spite of leaving the land fallow he could harvest the crop with the production of 8.55q/ha of blackgram. He spent Rs.26700/- as cost of cultivation per hectare. He sold Blackgram @ Rs 90/kg and earned total gross income of Rs 76950/ha and net returns of Rs. 50250.

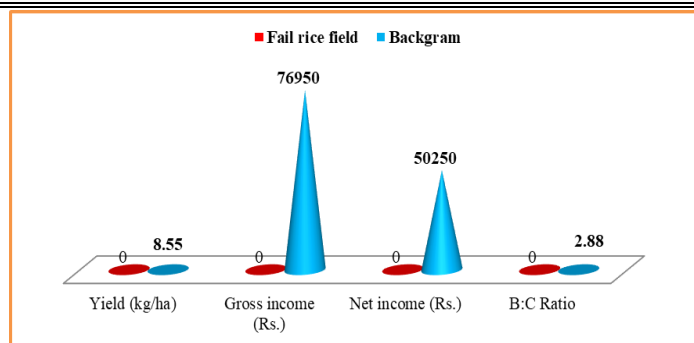


Fig. 1. Graphical presentation of performance of blackgram var. PU-31 over failed rice field

The B:C ratio is 2.88. His net income from 2 hectares of land from growing blackgram was Rs.100500. The additional income received from it assists his family management. Mr. Parpa Simthar Chothe became very successful from growing blackgram even though he fails to grow rice due to drought like situations. For him, "Drought became Blessing in Disguise" when other farmers of the surrounding villages failed in production. The high

yielding variety PU-31 was proven very successful and motivated farmers in the production of short duration Black gram in the rice failed areas due to water scarcity in the surrounding villages. Now, through this success story and with the help of ICAR-KVK, Chandel, many of the active farmers have taken keen interest to adapt improved technologies and improved work culture, not only to the farmers of these areas but also to the farmers of different areas.

He learned that, lessons from failure management can improve or even transform the efficacy of efforts. The most challenging part involves planning for failure, minimizing risks, effective design. During this period Mr. Parpa Simthar Chothe faced a problem of irrigation, financial problem, technology backup. He overcomes all these problems by attending the training programme to update the latest technology and by taking support from ICAR-KVK Chandel. The results from his success he would tackle the approaches developed to "fail intelligently" and more resilient to challenges and failures.
