

A Case Study :

Indigenous knowledge and practices of potato cultivation in Barpeta District of Assam

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ABSTRACT

The study was conducted in Barpeta district of Assam in the year 2005-06. It revealed that in the area of crop production, it was found that most of the farmers purchase the medium size seed tubers from the private seed suppliers which have no proper varietal identity and use to plant it in the month of November. Cent per cent of the farmers follow the below recommended spacing and most of the farmers found to use whole seed for planting with non-balanced dose of fertilizers. Cent per cent of the farmers do not go for weeding and earthing up operation. In the area of crop protection, no farmers was found to adopt the practices of seed treatment, control measures for brown rot disease and for cut worm and potato tuber moth. Most of the farmers were found to adopt the control measures for late blight and only few farmers were found to use control measures for white grub. In the area of post harvest handling, it was seen that cent per cent of the farmers harvest the potato manually and go for sorting and grading of the harvested potato. Again it was found that most of the farmers do not store their produce scientifically.

Key words : Indigenous knowledge, Potato cultivation, Post harvest handling of potato.

In the field of agriculture, indigenous knowledge system is important for developing location specific technology for a particular geographical area. Modern science and technology must go hand in hand with indigenous or local knowledge for sustainable development of agriculture.

Indigenous knowledge (IK) refers to the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area (Grenier, 1998). IK is stored in peoples memories and activities and it is expressed in the form of stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local language and taxonomy, agricultural practices, equipment, materials, plant sciences and animal breeds (Atte, 1992). Acquisition of IK takes place over a long period of time by local people through the accumulation of experiences, informal experiments and intimate understanding of the environment in a given culture that enables communities to survive.

IK systems and technologies are found to be socially desirable, economically affordable, sustainable and involve minimum risk to rural farmers and producers and above all, they are widely believed to conserve resources (Grenier, 1998). They can understand, handle and maintain them better than introduced modern practices and technologies. Farmer's indigenous knowledge and

practices are appreciable in a sense that these are low cost and locally available. But experiences show that these practices are less productive and therefore proper refinement of these practices is necessary for the development of location specific appropriate technology which will give better yield per unit area. Keeping the above point in view, the present study was designed to see the farmer's indigenous practices of potato cultivation as well as the rationale behind them as potato is one of the important horticultural crops of the state of Assam and specially the leading potato growing district *i.e.* Barpeta.

METHODOLOGY

The study was conducted in Assam during the year 2005-06. Out of the 23 districts of the state, Barpeta was selected purposely on the basis of highest potato production (12.30%) and second in area (12.20%) under potato crop. A multistage random sampling technique was utilized for selection of one block namely Mandia; four villages namely two no. Bordoloni, three no. Bordoloni, Paschim Jaharpam and Baharmura and 100 sample farmers (*i.e.* 25 from each village). The scientific potato production technologies were categorized into three heads namely, potato production, potato protection and post harvest handling for comprehensible analysis and synthesis of data. Simple statistics *viz.*, frequency and per cent distribution were utilized to draw meaningful conclusions.