

## INDIGENOUS TECHNICAL KNOWLEDGE (ITK): HOW TO DO

S.C. VIMAL AND K.K. SRIVASTAVA

Department of Seed Science and Technology, N.D. University of Agriculture and Technology, Kumarganj, FAIZABAD(U.P.) INDIA

Indigenous knowledge is local knowledge, that is unique to a given society or cultural group. In the other hand, ITK is 'Rural people's knowledge'. The whole system of knowledge is including concept, beliefs and perceptions. The stock of indigenous knowledge is acquired, stored and added to and transmitted through practical participation in environmental management and also through oral education. In real sense, it is the information base of the society and it indicated the procedure of communication and decision-making. It is passed from generation to generation, usually by words of mouth, since such knowledge is not readily available. Indigenous knowledge of Agriculture is a valuable resource and essential foundation for the development of sustainable agriculture, while last 50 years the impact of the green revolution was quite significant in stepping upon crop productivity specially that of food grains. With this increase in crop yields by modern farming techniques productivity has reached a plateau and the environmental problems has been arises due to excessive use of pesticides and chemical fertilizers. Indigenous knowledge offers cheap, locally adopted solution to develop a technique to remove soil problems and environmental problems so that it can be molded with scientific knowledge to boost productivity and living standard. "Rural people knowledge is often superior to that of outsiders".

### The essence of compilation of ITK:

Farming is as ancient as human civilization. In India, we have the history of farming of more than ten thousands years and during this period farmers evolved various technology in crops. A good indigenous practice confined to one region may prove useful in solving the problem of other regions. Some time, single indigenous practice can be improved slightly to replace innovation, which for peculiar socio-economic condition does not make headway in this locality. A number of ITK are still practice by our farmers in India.

### ITK use for crop production and seed storage:

- To safe ratoon crop of sugarcane, farmers use sugarcane leaves for mulching in between the rows. After first rain in June, they apply 50 kg urea per acre as top dressing for fast rooting of the sugarcane leaves. By this process farmers save sugarcane crop from weeds and minimize the cost on inter culture operations.
- Wheat seeds are soaked in the water for a night before sowing. This practice helps in early germination when sowing has been delayed.

- After harvesting of sugarcane, farmers sow wheat in furrows with the help of desi plough. By this process they get both wheat and ratoon crop of sugarcane.
- To save sugarcane, wheat and paddy crops from rats, sacharum (saw edged grass) grass in filled in the burrows of rats and closed with mud.
- Farmers grow gram with linseed or coriander to save gram crop from wilt disease.
- Mix cropping of pigeon pea with grain sorghum escapes wilt disease.
- Sesamum is grown as a trap crop with urd, mung and other *Kharif* crops to save main crop from the attack of Bihar hairy cater pillers and Neelgay.
- To safe the crop from Neelgay (Antilop) farmer can spray water suspension of cow dung around the field.
- Tying the broad basal stem of mango tree with polythene, mille bug of mango can be controlled.
- By altering adventitious rooted crop in rotation with tap-rooted crop, maintain fertility level of field.
- To prevent attack of wilt disease in gram and lentil, farmers can mix 100 ml mustard oil with 40 kg seeds at the time of sowing.
- To save the crops of gram, pigeonpea and lentil from fungal diseases, treat the seeds with mattha @ 5 lit/ 40 kg seeds.
- To minimize the weeds and as well as increase nitrogen level in field, farmers grow sesamum or sesbania crop.
- Farmers grow sunhemp in those fields where the motha weed is problem.
- To control termite attack, farmers use 2.5 lit. kerosene oil per acre at the time of irrigation.
- To control khaira and blight disease in paddy, farmers broadcast 8 kg salt per acre.
- Farmers cultivate coriander, ginger and turmeric crops in mango orchard to prevent the inset pests attack.
- Neem cack is used as soil application to control termite.
- Wheat may be kept with Rabis (waste materials from bricks factory) in ratio of 15:1 or with neem leaves for safe storage to prevent attack of insects and disease infestations.
- Cow dung balls are with paddy grain safe storage. Ash, which farmers get after burning of the fuel wood, is mixed with the pulses and millets grains while storing. 20 kg millet grain mixed with 500-1000 g of ash may control the storage pests.