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ICAR facilitates lab-to-land transfer of liquid biofertilizer

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To extend its reach to the farmers, the Anand Agricultural University (AAU), Anand has licensed the technology of liquid biofertilizer (LBF) for commercialization to three companies in Gujarat through its Business Planning and Development Unit (BPDU) under Public Private Partnership (PPP) mode. BPDU is a special project at AAU under the World Bank funded scheme of National Agricultural Innovation Project (NAIP) of Indian Council of Agricultural Research (ICAR), New Delhi.

AAU has developed a liquid formulation of biofertilizers that are safe and eco-friendly alternative to chemical fertilizers. The liquid biofertilizers (LBF) are suspensions having useful microorganisms, which fix atmospheric nitrogen and solubilize insoluble phosphates and make it available for the plants. LBFs are sold to farmers under the brand name "Anubhav liquid biofertilizers" by the University. Anubhav LBF is based on native cultures of bacteria viz., Azotobacter chroococcum, Azospirillum lipoferum and Bacillus coagulans.

AAU has supplied LBFs to the tune of 50,000 litres to the government of Gujarat for distribution to farmers as a part of Krishi kit during Krishi Mahotsav, a mass agricultural technology dissemination program of the Department of Agriculture, government of Gujarat. The response of Gujarat farmers on use of LBF in different crops such as cotton, banana, potato, rose, turmeric, and papaya reported better yield and quality.

Liquid biofertilizers have a distinct advantage in terms of cost saving on chemical fertilizers in addition to yield advantage. Chemical fertilizers otherwise may have negative effects on soil as well as human health, change the soil chemistry and these soils no longer support plant growth in the long run.

The earlier products of biofertilizers were carrier (solid) based where lignite is usually added as a carrier material. Lignite is hazardous to the production workers. Also, the shelf life of carrier based biofertilizers is only six months and is difficult to transport. LBFs on the other hand have a shelf life of minimum one year, with no health hazards to production workers and are easy to transport. Additionally, LBF can be used in drip irrigation and as a component of organic farming.

Dr RV Vyas, research scientist (Microbiology) and Mrs HN Shelat, associate research scientist (Microbiology) have been awarded with a "Certificate of Appreciation" from the ICAR for development of LBF and its commercialization.