

Oyster Mushroom Cultivation Using Large Cardamom Substrate: A Pioneering Initiative by KVK Anjaw

Large cardamom is a major cash crop of Anjaw district and plays a vital role in the livelihood security of farming households. However, over the years, declining productivity due to aging plantations, pest and disease incidence and climatic variability has resulted not only in income loss but also in the accumulation of large quantities of cardamom residues. These residues were traditionally left unused in the field, burnt or occasionally used as mulching material, leading to wastage of valuable biomass and environmental concerns. Recognizing this challenge, Krishi Vigyan Kendra, Anjaw conceptualized and successfully established a novel and innovative technology on oyster mushroom cultivation using large cardamom substrate. This intervention marks the first successful development and validation of this technology, which has not been reported elsewhere, thereby representing a significant scientific and practical breakthrough. The technology involved the utilization of dried large cardamom stalks and residues as an alternative substrate for cultivating oyster mushroom (*Pleurotus sajor caju*) using a low-cost bag cultivation method. After systematic experimentation and close technical supervision by KVK scientists, the trial yielded encouraging results. The substrate supported healthy mycelial growth, timely fruiting and yields comparable to those obtained from conventional substrates. The cropping cycle was short, making the enterprise suitable for small and marginal farmers.

Following the successful trial, the technology was demonstrated in farmers' fields, where it generated keen interest among farmers. As a follow-up of the technology dissemination, training and demonstration programmes were organized in different villages of Anjaw district, with special focus on rural youth and farm women. Participants were trained on substrate preparation, spawning, crop management, harvesting and basic hygiene practices. The intervention provided hands-on learning opportunities and promoted confidence among participants to adopt the technology at household level. The impact of this initiative has been multi-dimensional. The technology has enabled value addition to large cardamom waste, reduced residue burning and promoted environmentally sustainable practices. It has also opened up a new avenue for income generation, livelihood diversification and nutritional security, particularly for women and youth. The enterprise is low-investment, climate-resilient and well-suited to the hill ecosystem of Anjaw district.

Overall, the successful establishment of oyster mushroom cultivation using large cardamom substrate by KVK Anjaw stands as a pioneering model of waste-to-wealth innovation. The technology has strong potential for scaling up through continued capacity building and integration with ongoing livelihood development programmes, contributing to sustainable and resilient hill agriculture, especially for Anjaw District.



