Release of IPM cumin publication, 26 July 2026

Cumin has emerged as a vital seed spice in Rajasthan, renowned for its quality and aromatic properties. It is especially well suited to the desert regions of Rajasthan and parts of Gujarat due to favorable soil and climatic conditions. Known for its distinctive flavor, dietary benefits and medicinal value, cumin holds a strong position in both domestic and international spice markets. However, its cultivation requires specific techniques because of its sensitivity to growing conditions. Recognizing its potential, ICAR-National Research Centre on Seed Spices (NRCSS), Ajmer in collaboration with the South Asia Biotechnology Centre (SABC), Jodhpur has made significant strides to establish cumin as a key crop in Rajasthan, aiming to benefit farmers and traders alike.

The Department of Biotechnology (DBT), Government of India supported the Biotech Kisan Hub for Western Dry Region under its flagship initiative the Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) to support cumin cultivation at scale across the Western dry region between 2020 to 2023. This initiative enhanced the production of high-quality, residue-free IPM cumin through the area-wide adoption of Integrated Pest Management (IPM) and Good Agricultural Practices (GAP), aligning with domestic and international food safety standards. The IPM approach emphasized the production of pesticide residue-free IPM cumin, focusing on sustainable pest and disease management methods. This approach involved careful monitoring, adherence to production standards, food safety testing and value chain development involving Farmer Producer Organizations (FPOs), small agribusinesses and entrepreneurs and private companies for the procurement of organic and IPM-certified cumin, thereby reinforcing India's commitment to quality in the global spice trade. The success story IPM cumin of the biotech kisan hub project resulted into a comprehensive publication "**Sustainable Practices for Quality Production of IPM Cumin (*Cuminum cyminum* L.)",** authored by Bhagirath Choudhary, SS Meena, MD Meena, Shiv Lal, Neha Bulchandani, Sandip Agale, Naresh, Shreya Mishra & KS Bharadwaj and published jointly by ICAR-NRCSS, Ajmer and SABC, Jodhpur.

Building on these efforts, large-scale production of IPM cumin in Rajasthan's Western dry region is now underway. Expansion of current production levels and procurement systems is ensuring the growth of Rajasthan as an epicentre for IPM cumin production. Promoting pesticide residue-free IPM cultivation of cumin and other spices such as coriander and fenugreek, supports both domestic and export demand while adhering to high food safety standards. This scaling-up process showcases Rajasthan's leadership in sustainable, high-quality spice production, fostering further development and recognition of IPM cumin as a premier product and enabling better price realization for smallholder farmers in the Western dry region.

The Biotech KISAN initiative has led to the system-wide adoption and promotion of residue-free production protocols, enabling the value chain ecosystem to evolve into a self-sustaining market for the production, processing and export of high-value IPM cumin in Rajasthan. The ICAR-NRCSS takes pride in collaborating with the South Asia Biotechnology Centre (SABC), Jodhpur

to witness this transformation where conventional cumin cultivation is steadily advancing into a high-value, globally competitive IPM-based production system, delivering enhanced returns to farmers while strengthening India's position in the international spice market.

Sustainable Practices for Quality Production of IPM CUMIN

Link- https://www.nrcssajmer.org.in/upload/cumin20.pdf