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Advancing Cotton Farming Through HDPS: The Role of Modern Machinery and Expert Guidance on Meka Venkat Reddy's Farm

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Meka Venkat Reddy, a large-scale farmer from Kuravi village in Kuravi Mandal, Mahabubabad district, is making remarkable strides in cotton farming with the High Density Planting System (HDPS). This year, he is cultivating 8 acres of cotton, and his innovative farm practices and use of modern machinery have set him apart as a leader in HDPS cotton farming.

One of the key innovations on Venkat Reddy's farm is the use of a pneumatic planter for sowing cotton seeds. This advanced machine allows for precise planting at accurate depths and distances, ensuring even spacing and proper seed placement. By using the pneumatic planter, Venkat Reddy can sow cotton seeds efficiently, saving time and reducing labour costs while ensuring optimal growth conditions for the plants. The planter's ability to handle seeds gently and accurately is crucial for achieving consistent plant populations, which is essential for the success of HDPS.

In addition to the pneumatic planter, Venkat Reddy uses a cotton shredder to manage crop residues effectively. After harvesting, the shredder is used to break down cotton stalks and other plant residues, incorporating them into the soil. This practice helps improve soil health by enriching it with organic matter, enhancing water retention, soil structure, and fertility. By recycling plant residues, Venkat Reddy reduces the need for synthetic fertilizers and helps sustain long-term soil productivity. This approach also controls pests and diseases by minimizing the build-up of left over plant material, which could otherwise serve as a breeding ground for harmful organisms. Along with using modern machinery, Venkat Reddy practices crop rotation, which complements his HDPS cotton farming. This year, he is rotating cotton with maize, a practice that helps maintain soil health and productivity. Crop rotation breaks pest cycles, reduces soil nutrient depletion, and prevents the build-up of diseases specific to cotton. By alternating crops, Venkat Reddy ensures that the soil remains fertile and free from the risks of monoculture farming, making his approach both sustainable and productive.

Venkat Reddy's use of advanced farming techniques and machinery reflects his forward- thinking approach to agriculture. By adopting the HDPS system, using high-efficiency machinery like the pneumatic planter and cotton shredder, and practicing crop rotation, he is not only improving his cotton yields but also ensuring his farm remains sustainable for years to come. His practices serve as a valuable example to other farmers looking to adopt modern, environmentally friendly farming methods that maximize productivity and minimize their ecological footprint. The farm machinery used by Venkat Reddy, including the pneumatic planter and cotton shredder, was provided by the Krishi Vigyan Kendra (KVK) Malyal. In addition to providing the machinery, KVK scientists also offered on-field training to Venkat Reddy and other local farmers, demonstrating how to use the machinery effectively. These training sessions were conducted live in the field, allowing

farmers to see first-hand how the equipment worked and how it could improve their farming practices. The scientists from KVK provided valuable support and shared essential knowledge about the operation of the machinery, ensuring farmers were well-equipped to adopt these modern tools.

Venkat Reddy chose the RCH 929 cotton variety for his HDPS system, as it is well-suited for high-density planting. To manage the height of his cotton plants and prevent them from growing too tall, Venkat Reddy applied a growth regulator (Mepiquat chloride) locally known as "Chamatkar," at45 and 60 days after planting. This intervention helped the plants grow stronger, develop more branches, and maintain a manageable height, leading to healthier plants and higher yields. Thanks to these practices, Venkat Reddy's farm now produces up to 12 quintals per acre, a significantly higher yield compared to traditional farming methods. His success high light show adopting modern techniques, selecting the right seeds, and seeking expert advice can greatly enhance farm productivity and sustainability. Venkat Reddy's journey, supported by the KVK Malyal scientists and the provision of farm machinery, is an inspiring example for other farmers looking to improve their farming practices and achieve better results.

KVK, Malyal conducting a field day on incorporation of cotton stubbles through shredder

Meka Venkat Reddy's HDPS Cotton field at Kuravi Village of Mahabubabad District.