

## Dissemination of technology for rice fallow pulse in machine harvested rice fields

<b>Background</b>	<p>Production of pulses and its consumption are important in maintaining food security. They occupy an important place in human diet. Pulses contain higher level of vegetable protein compared to any other grains and vegetables. People of different income groups in both rural and urban areas consume pulses at varying levels to fulfill their nutrition requirements. Cultivation of pulses helps to maintain soil fertility through nitrogen fixation. Pulses are also a profitable crop for the farmers. They are cultivated in many parts and consumed in all parts of the world. Pulses can grow both in rainfed and irrigated conditions. In Thiruvarur District, about two lakh ha of pulses is grown. Blackgram is one of the important pulses grown in both Kharif and Rabi seasons in Thiruvarur district. It accounts for 41.0% of the total area under pulses during the current year. Greengram is one of the major pulses widely consumed next to Blackgram. It is grown in both Kharif and Rabi seasons. The crop is extensively cultivated in Thiruvarur district.</p> <p>The major problem in recent years in pulse is due to machine harvest in paddy fields which hinders the rice fallow pulse crop.</p>
<b>Intervention Process</b>	<p>Taking into account of the production of pulses and its consumption, this Kendra has taken initiative to overcome the problem of machine harvest in paddy fields which hinders the rice fallow pulse crop. This Kendra disseminated the <b>technology for rice fallow pulse in machine harvested rice fields</b> to the farmers of Thiruvarur district.</p>
<b>Intervention Technology</b>	<p>Sowing rice fallow pulse about 4 days prior to harvest of sambha rice crop in a waxy soil condition (on appearance of hair line cracks)adopting a seed rate of 30 kg ha<sup>-1</sup> and harvesting with chain/belt type combine harvester is beneficial for maintaining higher plant population (35/m<sup>2</sup>), yield (806 kg ha<sup>-1</sup>) and economic returns(BCR of 4.18).</p>
<b>Impact Horizontal Spread</b>	<p>After stringent action of this Kendra, this the technology for rice fallow pulse in machine harvested rice fields has spread almost across the district. High degree of acceptance noticed among farmers who witnessed the demonstrations. The Department of Agriculture, Thiruvarur has already included it in their pamphlets on 'Improved pulse production techniques' and distributed to farmers.</p>
<b>Impact Economic Gains</b>	<p>(i) With no additional physical or chemical inputs involved, adoption of this technology can sustain the practice of raising rice fallow pulse as a zero tillage crop even in machine harvested rice fields.</p> <p>(ii) Having a rice fallow pulse crop in the cropping sequence keeps the soil well aerated by the cracks formed under dry soil conditions thus facilitating the rebuilding of soil structure, aerobic microflora and effective decomposition of rice crop residues.</p>