

## Agriculture research management

Bajpai

---

### EDITORIAL

The vicious cycle of groundnut monocropping in lakhs of hectares by investing large amounts, and all of it going waste due to recurring droughts, had become a routine in Anantapur district, pushing farmers into distress.

To overcome this, some NGOs and the Zero Budget Farming concept promoted by the government had been advocating polycropping (Navadhanya), but lack of scientific approach had limited the practice to only a handful of fields.

A successful experiment of 'rainbow cropping' (mechanised strip cropping) at the Agriculture Research Station in Rekulakunta has given a new hope to farmers.

Designed by former head of the research station R. Veeraghavaiah, the concept was being implemented on a trial basis for the last two years under the supervision of Principal Scientist B. Sahadeva Reddy and was closely monitored by agriculture scientist Y. Pavan Kumar Reddy.

Currently, the third round of cropping is about to be completed.

As part of the method, rainfed crops are planted in the shape of a rainbow with crop foliage of different colours.

A visit to the experimental field showed that the concept is suitable only for a single family-held small piece of land and is labour-intensive. Proper

harvesting and weeding without damaging the actual crop turns a herculean task.

Mr. Pavan Kumar said as the crops are diversified – oil seeds, millets, and pulses—rainbow cropping system ensures a complete food basket to farmers apart from an assured income. Failure of one crop can be compensated by the others, he said.

The height-based sowing allows maximum exposure to sunlight, utilising moisture to the maximum extent possible with reduced runoff.

The strips of crops in experimental plot are red gram, castor, jowar, bajra, korra, cowpea, and groundnut. Red gram, castor, jowar, bajra, korra, cowpea, and groundnut are sown in strips along the bordering rows of bajra/jowar.

The rainbow cropping system recorded 709 kg/acre yield compared to 464 kg/acre of Navadhanya system and 530 kg/acre of groundnut monocropping.

The rainbow cropping system recorded a higher groundnut equivalent yield (551 kg/acre) followed by sole groundnut (530 kg/acre) and the lowest recorded with the navadhanya cropping system (457 kg/acre). The highest groundnut fodder equivalent yields were recorded with sole groundnut (1230 kg/acre) followed by navadhanya cropping system (1000 kg/acre) and the lowest was recorded in the rainbow cropping system (527 kg/acre).

---

Department of Agricultural Sciences and Farmers Welfare, Ministry of Agriculture, Rajasthan, India

**Correspondence** Bajpai, Department of Agricultural Sciences and Farmers Welfare, Ministry of Agriculture, Rajasthan, India, Tel: +09174685479; E-mail: bajpai5688@gmail.com

**Received date:** September 16, 2020; **Accepted date:** September 23, 2020; **Published date:** September 30, 2020



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact [reprints@pulsus.com](mailto:reprints@pulsus.com)