

IDT9-049 | Harnessing the power of social media to reach the unreached: knowledge dissemination for greater impact of tropical legumes

Nilesh Mishra¹*, Emmanuel S Monyo², Rajeev K Varshney¹

¹International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India

²International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, Nairobi

*E-mail: m.nilesh@cgiar.org

Tropical Legumes III (a project supported by Bill & Melinda Gates Foundation, led by ICRISAT and jointly implemented by CIAT, IITA and NARS partners) has developed several technologies, including best bet varieties (>163) and other pool of resources over 3 phases (2007-2016) of its implementation. However, it faces the challenge of reaching the intended target population at scale, putting our mission of availing International Public Goods (IPG's) in jeopardy. ICRISAT being majorly funded by public money is a firm supporter of global open access and considers technologies, research results and data generated from different projects as IPGs to be shared with the global scientific community using different open source platforms and tools.

Social media revolution has potential to address some of these challenges and so TL III marked its presence on four social media platforms: [Facebook](#) (500 followers), [Twitter](#) (230 followers), [Slide-share](#) (8,242 views), and [Flickr](#) (396 photos) and regularly uses them as a vehicle to reach farmers and interested stakeholders. Technologies and varieties developed under TL III have been an eye opener for many in the agriculture sector, and small-holder farming in particular. Over the period of one year of the project phase III implementation, these four different platforms have shown different level of engagements, information dissemination and reach, which will be highlighted and discussed.

IDT9-050 | Extent of heterosis in CMS based hybrids of Pigeonpea [*Cajanus cajan* (L.) Millsp.]

Mohan N^{1,3*}, Galian JL², Babu JDP³, Sameerkumar CV⁴, Rao VS³

¹Institute of Agricultural Science, BHU, Varanasi, 221 005, Uttar Pradesh, India.

²Benguet State University, La Trinidad, Benguet, 2601, Philippines.

³Acharya N G Ranga Agricultural University, Guntur, 522 509, Andhra Pradesh, India.

⁴International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India.

* E-mail: nidhimohan91@gmail.com

Endowed with several unique characteristics, pigeonpea [*Cajanus cajan* (L.) Millsp.] holds a prominent position in farm households of semi-arid and arid regions of the world. With the advent of hybrid pigeonpea technology, pigeonpea, once designated as orphan crop, has grown in importance as a commercial crop. Thus, development of more number of quality hybrid varieties has become imperative to meet the future demand. The present study was taken up to elicit the information on magnitude of the genetic variability, heritability, genetic advance as percent of mean, extent of fertility restoration and heterosis in newly developed CMS based pigeonpea hybrids. Twenty four pigeonpea hybrids along with four checks viz., *Asha*, *Maruti*, LRG 41 and BDN 711, were evaluated in *kharif*

2015 at ICRISAT, Patancheru. Analysis of variance showed significant differences among the hybrids for all the characters studied. High genetic variability coupled with high heritability and genetic advance as percent of mean were recorded for number of primary branches, number of secondary branches and pollen fertility percent. Fertility restoration studies showed that 15 out of 24 hybrids recorded high (>80 %) pollen fertility and exhibited better fertility restoration. High levels of heterosis i.e. over 50% in traits like number of pods per plant, pod weight per plant and grain yield per plant. were also recorded. ICPH 3762 and ICPH 4502, with high *per se* performance and high standard heterosis for grain yield per plant and for majority of yield attributes, were identified as promising hybrids.