

## **MAIZE RESEARCH STATION, RAJENDRANAGAR**

Year of establishment:1957

Mandate:

- Development of high yielding – early, medium and long duration hybrids tolerant to pests and diseases
- Development of specialty corn hybrids in sweet corn, quality protein maize (QPM), baby corn and popcorn
- Development of maize hybrids tolerant to drought and heat stresses
- Maintenance, nucleus and breeder seed production of parental lines of released hybrids and composites
- Development of suitable seed production technologies for maize parental lines and hybrids released from the centre
- Standardization of population densities and fertilizer schedules for pre-release maize hybrids
- Studies on weed management with post-emergence herbicides and cropping systems in maize
- Management of pests and diseases in maize

Significant achievements:

Hybrids or composites released

- Five double cross hybrids were released for cultivation viz., DHM (1961), DHM 101 (1975), DHM 103 (1982), DHM 1 (1988) and DHM 105 (1990).
- Three composites were released for cultivation viz., Ashwini (1987), Harsha (1988) and Varun (1990, the first for medium maturity and drought tolerant).
- Three 3-way cross hybrids were released for the first time in the country for cultivation viz., Trishulatha (1991, late maturity), DHM 107 (1992, medium maturity) and DHM 109 (1993, early maturity).
- Six single cross hybrids were released for cultivation viz., Amber Shakti (2004, the first QPM), DHM 115 (2004), DHM 111 (2009), DHM 113 (2009), DHM 117 (2009), DHM 119 (2010) and DHM 121 (2013).
- Popcorn composite variety, Amber popcorn in 1975 and popcorn hybrid, BPCH 6 (the first in the country from public & private sector) in 2012 were released for cultivation in all over India.



- Sweet corn composite variety, Madhuri (1990, 1<sup>st</sup> in the country) and Priya (2002) were released for cultivation in all over India.
- A total quantity of 1266.22 quintals of maize seed were produced including 269.14 q of breeder seed (parental lines and composites), 40.14 q of foundation seed (parental lines) and 956.94 q of certified seed (DHM 117, DHM 121 and others).
- Thirteen MOUs were made with 12 private commercial seed producing companies to produce and market SCH hybrids DHM117 (10 MoUs) and DHM 121 (3 MoUs).
- Production technology in zero-tillage maize (seed to seed) was developed and tested in farmers' fields in rice-maize cropping system
- Suitable production technology was developed for cultivation of sweet corn and popcorn hybrids in peri-urban fields.
- Release of Trichocards @ 8 cards/ha twice at 12 and 22 days after germination is a valid IPM technology to control *C.partellus*.
- Introduced growing 2-3 rows of jowar as a trap crop around maize field. Uprooting of jowar after 45 days or spraying on jowar reduced the infestation of stalk borer.
- New molecules were evaluated against *Chilo partellus* and recommended chlorantriliniprole 20 SC @0.3 ml/l of water effective against stem borers.
- Application of double the dose of potash is recommended to reduce the incidence of post-flowering stalk rot.

#### **Awards received:**

Maize Research Centre, PJTSAU has been honoured with the following ICAR-IIMR awards on the occasion of Diamond Jubilee Celebrations of AICRIP MAIZE at 60<sup>th</sup> Annual Maize Workshop held at MPUAT, Udaipur during 2-4 April, 2017.

- “Outstanding AICRP Centre” award for contribution in maize research and development in the Country (1957-2015)
- “Best performance in Breeder seed production (1995-2015)” and “Commercialization of technologies through MoUs with private seed enterprises (1957-2015)”



“Outstanding AICRP Centre” award for contribution in maize research and development in the Country (1957-2015).



Best performance in Breeder seed production (1995-2015)



Commercialization of technologies through MoUs with private seed enterprises (1957-2015)



Receiving PPV & FRA Registration Certificates for DHM 111, DHM 113 and DHM 119



On the occasion of receipt of awards from IIMR, New Delhi during diamond jubilee workshop Hon'ble Vice-Chancellor Dr.V.Praveen Rao and S. Sudheer Kumar, Registrar PJTSAU congratulating the Maize Staff

