

# Recommendations of 46<sup>th</sup> Annual Rice Group Meetings held at DRR during 9-11 April 2011

## VARIETAL IMPROVEMENT

The Variety Identification Committee recommended the following 4 varieties and 2 hybrids:

### I. Varieties identified

**IET 19972 (SJR 5)** with 108 flowering duration out-yielded national check - Jaya, regional & local checks and is identified for the states of **Jammu & Kashmir, Haryana and Tamil Nadu**. It has long slender grains with desirable cooking quality features and possesses resistance to leaf blast and to planthoppers.

**IET 19816 (CR 2301-5)** showed good yield advantage over IR 64, PR 106 and local with desirable cooking quality features. It has 113 days flowering duration and long slender grains with high head rice recovery. It has moderate resistance to leaf blast, neck blast and sheath rot and is recommended for the states of **Maharashtra, Odisha, Bihar and Gujarat**.

**IET 20220 (CR 2285-6-6-3-1)** for deep water ecosystem showed 29.2% yield superiority over national check (Jalmagna), and over regional check (Dinesh). It has medium slender grains with attractive grain appearance combined with good cooking quality parameters. The culture possesses moderate resistance to leaf blast, neck blast and sheath rot and is identified for the deep water areas of **Uttar Pradesh and Odisha**.

**IET 20827 (MAUB 171)** recorded yield superiority over Pusa Basmati-1. The culture has a flowering duration of 113 days and possesses moderate resistance to brown spot and sheath rot. IET 20827 is identified for the traditional basmati growing areas of **Western Uttar Pradesh, Haryana and Jammu & Kashmir**.

### II. Hybrids identified

**IET 20716 (VNR 204)**, a hybrid with 90-95 days flowering duration and long slender grains exhibited yield superiority over PA 6201 hybrid check and over national, regional, local and other qualifying checks. It has resistance to leaf blast with good grain quality parameters and identified for the states of **Chhattisgarh and Tamil Nadu**.

**IET 20735 (VNR 202)**, a hybrid of medium duration surpassed the hybrid check KRH-2 with 11.2% and was also superior to national, regional, local and the qualifying hybrid checks. It has medium slender grains with a flowering duration of 100-105 days with good grain quality traits. It has moderate resistance to leaf blast and neck blast and identified for the states of **Uttar Pradesh, Uttarakhand, West Bengal, Maharashtra and Tamil Nadu**.

## **AGRONOMY**

Growing of rice + sunhemp + 60:40:40:500 or 60:60:40:500 kg/ha N:P:K:Lime and foliar spray of 0.5% ZnSO<sub>4</sub> was found promising for rainfed uplands.

Planting of 25 days old single seedling (DOS)/hill at 25 cm x 25 cm for early planting, while 45 DOS @ 3 seedlings/hill at 20 cm x 10 cm for late planting was better for productivity of *boro* rice.

Combination herbicides, bensulfuron-methyl + pretilachlor (6.6 GR+) @ 0.06 + 0.60 kg a.i./ha as post emergence in conjunction with glyphosate (41 EC) @ 0.75 kg a.i./ha pre-planting was found effective for weed management in rice based cropping system, under irrigated ecosystem.

## **SOIL SCIENCE**

For the dry sown aerobic rice grown in the Indo Gangetic Plains (Kanpur) and Deccan plateau (DRR), regulated supply of irrigation water equivalent to 100% of cumulative pan evaporation (CPE) and nutrient application, respectively of N P K 120 60 50 or 120 0 100 improved water productivity without yield penalty and saved 16 - 21% of irrigation water.

Straw utilization benefited rice productivity with positive soil nutrient balance of 12 kg N and P and 25-45 kg K<sub>2</sub>O/ha, enhanced soil carbon content and contributed 20-48 kg N, 6-23 kg P<sub>2</sub>O<sub>5</sub> and 14-50 kg K<sub>2</sub>O/ha to the crop.

## **PHYSIOLOGY**

IET 20924 was physiologically superior with both photo insensitive and heat tolerance characteristics. Other useful photo insensitive line IET 20935; heat tolerance lines IET 20907; IET 21009 were indentified for developing climate resilient rice genotypes.

## **ENTOMOLOGY**

An aromatic rice variety like Pusa Basmati can be used as trap crop by planting one row for every 9 rows of main crop to minimize damage by yellow stem borer with favourable benefit cost ratio.

## **PLANT PATHOLOGY**

The combination product (Flubendamide 3.5% + Hexaconazole 5% WG) @ 2 g/liter was effective against sheath blight, stem borer and leaf folder.