

Plant Germplasm Registration Notice

The Germplasm Registration Committee of ICAR in its seventh meeting held on 29th January 2001 approved the registration of following 18 germplasm lines/genetic stocks of the 51 proposals received.

KBRL 10 (Reg. No. INGR 01001) Wheat

KBRL 10, Reg. No. INGR 01001 is a Karnal Bunt [*Neovossia indica* (Mitra) Mundukar] resistant line of bread wheat (*Triticum aestivum* L.) developed at Punjab Agricultural University, Ludhiana. It is developed by crossing Karnal Bunt resistant stocks, HP 1531 x HD 29, followed by backcrossing the F₁ generation with HP1531. Screening for individual plant progenies from F₂ resulted in the selection of Karnal Bunt-free plants. Further, screening and selection for the disease free plants continued in subsequent generations till homozygosity was attained. The final selections were screened under artificial inoculation, both against mixtures and individual isolates of *Neovossia indica* to confirm the resistance potential. These efforts have resulted in pyramiding the genes conferring Karnal Bunt resistance.

Indu Sharma, GS Nanda and Karam Chand
Punjab Agricultural University, Ludhiana-141004

KBRL 13 (Reg. No. INGR 01002) Wheat

KBRL 13, Reg. No. INGR 01002 is another Karnal Bunt [*Neovossia indica* (Mitra) Mundukar] resistant line of bread wheat (*Triticum aestivum* L.) developed at Punjab Agricultural University, Ludhiana. KBRL 13 is developed by crossing Karnal Bunt resistant stocks, W 485 x HD 29, followed by backcrossing of F₁ plants with HD 29. Individual plant progenies from F₂ were screened. Selection of Karnal Bunt-free plants was made in subsequent generations until uniformity. The final selections were screened under artificial inoculation against both individual and mixtures of isolates of *Neovossia indica* for three years to confirm the resistance potential. These efforts have resulted in pyramiding the genes conferring Karnal Bunt resistance.

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KBRL 22 (Reg. No. INGR 01003) Wheat

KBRL 22, Reg. No. INGR 01003, is a Karnal Bunt [*Neovossia indica* (Mitra) Mundukar] resistant line of bread wheat (*Triticum aestivum* L.) developed at Punjab Agricultural University, Ludhiana. KBRL 22 is developed by crossing Karnal Bunt resistant stocks, W 485 x HD 29 followed by backcrossing of F₁ plants with W 485.

Indian J. Plant Genet. Resour. 14: (1) (2001)

Screening of individual plant progenies from F₂ and in subsequent generations against Karnal Bunt resulted in identification of disease-free plants and isolation of a uniform line. The identified material was finally screened against artificial inoculation of both mixtures and individual isolates of *Neovossia indica* for three years to ascertain the resistance potential. This has resulted in the production of a Karnal Bunt resistance source by pyramiding the genes conferring Karnal Bunt resistance.

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WH 595 (Reg. No. INGR 01004) Wheat

WH 595, Reg. No. INGR 01004 is a leaf rust (*Puccinia recondita* Rob. ex Desm.) and stripe rust [*Puccinia glumarum* (Schmidt) Eriks. & Henn.] resistant genetic stock of bread wheat (*Triticum aestivum* L.) with excellent bread making quality and high protein content (13.95%). It was developed at Chaudhary Charan Singh, Haryana Agricultural University, Hisar, through single plant selection in PRL 6045/NAC 76. INGR 01004 has yield comparable to the available released cultivar, in addition to resistant potential.

Mohd Yunus, AS Redhu, LS Panwar, RB Srivastava, MS Beniwal
and AK Sharma
Chaudhary Charan Singh Haryana Agricultural University,
Hisar-125004

WH 712 (Reg. No. INGR 01005) Wheat

WH 712, Reg. No. INGR 01005 is a genetic stock of bread wheat (*Triticum aestivum* L.) with high sedimentation value (63.6%) among the varieties tested in Advance Variety Trial in North West Plain Zone. It has 12.4% protein content with 5.7 grain appearance score on 9 point scale and also possess 5+10 sub-units of glutenin. It is developed at Chaudhary Charan Singh, Haryana Agricultural University, Hisar through pedigree selection from TRAP#1 //BBW/PFAU.

Mohd Yunus, RB Yadav AS Redhu, IS Panwar, Sashi Madan and
B. Mishra
Chaudhary Charan Singh Haryana Agricultural University,
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BH 561 (Reg. No. INGR 01006) Barley

BH 561, Reg. No. INGR 01006 is multi-pistillate genotype of barley (*Hordeum vulgare* L.) with four ovaries. It was identified at Chaudhary Charan Singh, Haryana Agricultural University, Hisar in 1993 as a natural variant in F₂ population of cross, BG 105 x K 125. The plant type is normal, but without stamens in the open florets

of the spike. Genetically a single recessive gene governs this character. However, only one seed develops in each floret, which is bold, hulled with good germination percentage.

Dalvir Singh and SK Sethi
Chaudhary Charan Singh Haryana Agricultural University,
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BH 562 (Reg. No. INGR 01007) Barley Germplasm
BH 562, Reg. No. INGR 01007, is a 6-rowed genic male sterile line of barley (*Hordeum vulgare* L.) developed at Chaudhary Charan Singh, Haryana Agricultural University, Hisar. It was produced by the treatment of RD 2508 with gamma ray irradiation ^{60}Co (30 kR). The male sterility in BH562 is controlled by single recessive gene. INGR 01007 can be a good source for developing genotypes suitable for rainfed conditions using male sterile facilitated recurrent selection.

Dalvir Singh, VS Malik and Krishan Kumar
Chaudhary Charan Singh Haryana Agricultural University,
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BH 563 (Reg. No. INGR 01008) Barley Germplasm

BH 563, Reg. No. INGR 01008 is a 2-rowed genic male sterile line of barley (*Hordeum vulgare* L.) developed at Chaudhary Charan Singh, Haryana Agricultural University, Hisar. This line was identified in Alfa 93 population treated with sodium azide (NaN_3) of a concentration of 10^{-2} M. The male sterility is controlled by single recessive gene. BH 563 can be used as a source for developing genotypes suitable for malting quality through male sterile facilitated recurrent selection.

Dalvir Singh, VS Malik and Krishan Kumar
Chaudhary Charan Singh Haryana Agricultural University,
Hisar-125 004

DPC 9 (Reg. No. INGR 01009) Castor

DPC 9, Reg. No. INGR 01009 is a non-revertant, early stable pistillate genotype of castor (*Ricinus communis* L.) developed at Directorate of Oilseeds Research (DOR), Hyderabad with green stem, zero bloom and spiny capsules. It was developed through hybridisation and pedigree selection method in crosses of VP-1 x (Bhagya x CO-1) for pistillate behaviour. VP-1 was used as source for pistillate character. In addition, INGR 01009 gave the highest total quantity of seed (270.4 g/plant) in its growth period, and also had the highest oil content (53.4%) compared to other pistillate lines evaluated. The development of pistillate type under different genetic background is essential for hybrid breeding in castor.

SK Chakarbarthy, M Ramachandran,
C Hanumantha Rao and C Lavanya
Directorate of Oilseeds Research, Hyderabad-500030

LRES 17 (Reg. No. INGR 01010) Castor

LRES 17, Reg. No. INGR 01010, is an S type pistillate genotype of castor (*Ricinus communis* L.), developed at Directorate of Oilseeds Research (DOR), Hyderabad, with green stem, triple bloom, dwarf plant type and spiny capsules. It is developed by pedigree selection method in a cross between VP-1 x HC 8, for pistillate behaviour.

SK Chakarbarthy, M Ramachandran,
C Hanumantha Rao and C Lavanya
Directorate of Oilseeds Research, Hyderabad-500030

EX/A680-16 (Reg. No. INGR 01011) Potato Germplasm

EX/A680-16, Reg. No. INGR 01011 is short day adapted potato (*Solanum tuberosum* ssp. *andigena* L.) with resistance to early blight caused by *Alternaria solani* and late blight caused by *Phytophthora infestans* (Mont) de Bary. It was developed by clonal selection at Central Potato Research Institute, Shimla. The clone was identified in population of NO 502-14 x Bulk Pollen. It is an exceptionally good combiner for most characters, including tuber yield and its components, and resistance for early and late blight.

PC Gaur, Jai Gopal, SK Pandey and MS Rana
Central Potato Research Institute, Shimla-171001

Hisar Methi 346 (Reg. No. INGR 01012) Fenugreek

Hisar Methi-346, Reg. No. INGR 01012 is a downy mildew (*Pernospora trigonellae* Gaum.) resistant germplasm of fenugreek (*Trigonella foenum-graecum* L.). It has quick germination, faster initial growth, long pod, bold seed with green tan seed coat colour, and light green narrow leaves. It is a induced mutant, identified in IL-355-1 germplasm line, maintained as pure line at Chaudhary Charan Singh, Haryana Agricultural University, Hisar.

PS Partap, MK Rana and Rakesh Mehra
Chaudhary Charan Singh Haryana Agricultural University,
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Hisar Methi 350 (Reg. No. INGR 01013) Fenugreek

Hisar Methi 350, Reg. No. 01013 is a powdery mildew (*Erysiphe polygoni* DC.) resistant and downy mildew (*Pernospora trigonellae* Gaum.) tolerant germplasm of fenugreek (*Trigonella foenum-graecum* L.). The plant is tall erect, multi branched with whitish green stems and dark green narrow leaves. It was identified as a single plant selection from PLME 46-1 at Chaudhary Charan Singh, Haryana Agricultural University, Hisar.

PS Partap, MK Rana and Rakesh Mehra
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Trombay Sesbania rostrata-1 (TSR-1) (Reg. No. INGR 01014) Sesbania

TSR-1 Sesbania (*Sesbania rostrata*), Reg. No. INGR 01014 was identified, at Nuclear Agriculture and Biotechnology Division of Babha Atomic Research Centre, in M₂ generation of seeds treated with gamma rays. The parent *Sesbania rostrata* is sensitive to photoperiod and flowers after 60 days of vegetative growth. The mutant TSR-1, by virtue of its photoperiod insensitivity has longer vegetative phase compared to parent in winter and normal vegetative phase in other seasons. TSR-1 therefore, has potential for producing sufficient phyto-mass regardless of growing time.

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KPL 44 (Reg. No. INGR 01015) Pigeonpea

KPL44, Reg. No. INGR 01015, a long duration pigeonpea (*Cajanus cajan* Linn.), is a source of multiple disease resistance. It has resistance to *Fusarium udum* Bult., sterility mosaic and *Phytophthora drechsleri*. It is developed by pedigree selection from a segregating material at Indian Institute of Pulses Research, Kanpur.

DP Srivastava, Vishwadhar, RG Chaudhary and Naimuddin
Indian Institute of Pulses Research, Kanpur-208024

Safeda Rohtak (Reg. No. INGR 01016) Ber

Safeda Rohtak, Reg. No. INGR 01016 is a powdery mildew (*Oidium erysiphoides f. ziziphi*) resistant line of ber (*Zizyphus mauritiana* Lam.). It is a selection from local orchards of Rohtak (Haryana) and has been established at Hisar. The tree is a spreading type with lesser thorns. Tree height is 5.9 m, trunk girth 1.4 m with wide spread. Fruits are of small size having pointed apex and average weight 15.2 g, total soluble sugars 17 %, acidity 0.22 %, ascorbic acid 108.00 mg/100g pulp. Fruit yield is 100-120 Kg per tree.

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PC Gupta and RL Madan
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B.S.75-1 (Reg. No. INGR 01017) Ber

B.S.75-1, Reg. No. INGR 01017 is a fruit fly resistant line of ber (*Zizyphus mauritiana* Lam.) with sweet flavoured fruit. It is a selection made from local orchards of Bawal, Rewari, Haryana and established at Chaudhary Charan Singh, Haryana Agricultural University Hisar. The tree is of medium size, having height of 5.80 m, trunk girth 0.93 m with medium spread. Fruits are dark green before ripening. Average fruit weight is 15.5 g, total soluble sugars 19 %, acidity 0.28 %, Ascorbic acid 106 mg/100 gm pulp. Fruit yield is 150 kg per tree.

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BS75-3 (Reg. No. INGR 01018) Ber

B.S.75-3, Reg. No. INGR 01018 is a fruit fly resistant line of ber (*Zizyphus mauritiana* Lam.) with sweet flavoured fruit. It is a selection from local orchards of Bawal, Rewari, Haryana, established at Chaudhary Charan Singh Haryana Agricultural University Hisar. The tree is of medium size, spreading type having height 5.20 m, trunk girth 1.37 m and medium spread. The leaf is round with glossy upper surface. Average weight of the fruit is 14.2 gm, total soluble sugars 17 %, acidity 0.30 %, ascorbic acid 100 mg/100 g pulp. Fruit yield is 150 kg/tree.

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Errata

Plant Germplasm Registration 1999. *Indian J. Pl. Genet. Resour.* 12: 273-275:

Page 273, para 8, line 4 on INGR 99007, TERI-GAURAV (TERI-00-R 985) should read TERI-GAURAV (TERI-00-R 986) and Page 273, para 9, line 4 on INGR 99008, TERI-GARMIA (TERI-00-R 986) should read TERI-GARIMA (TERI-00-R 985)

Communicated by Dr AK Singh, Member Secretary, Plant Germplasm Registration Committee, NBPGR, New Delhi.