

Onion

Varieties

Recommended Onion Varieties

National Research Centre for Onion and Garlic (Now Directorate of Onion & Garlic Research) has developed seven new improved onion varieties as follows with high yield and quality potential.

Bhima Raj

The variety Bhima Raj (B-780-5-2-2, IC No. 561257) The variety Bhima Raj produces dark red and oval shaped bulbs with single centre and thin neck. The TSS range is from 10.0 to 11.0%. This variety is suitable for *kharif* and late *kharif* season in the states of Maharashtra, Karnataka and Gujarat. It can be cultivated during *rabi* season and has been identified in XXVth AICRP (VC) group meeting held at Hissar for zone VI (Rajasthan, Gujarat, Haryana and Delhi). The Bhima Raj matures within 120-125 days after transplanting with absolutely no bolters with average yield ranges from 25-30 t/ha with high percentage of marketable bulbs during rabi. The highest yield potential is 40-45 t/ha.



Bhima Red

Bhima Red (B-780-5-3-1, IC No. 561258) has been developed through bulb to row selection method. Bhima Red is suitable for late *kharif* in the states of Maharashtra, Karnataka, and Gujarat. It can be grown in Kharif season also. Bulbs are attractive red in colour with round shape. TSS ranged from 10.0 to 11.0%. Average yield in late kharif season ranged from 48.0-52.0 t/ha. Bolters are less than 5% during late *kharif* and almost no bolters during *rabi*. It can be stored up to 4 months during late *kharif* season. This variety can be grown during rabi season also for immediate marketing as it can be stored up to 3 months during rabi. It was identified at National level for Zone VII (Maharashtra & M.P) at XXVI AICRP (VC) group meeting 09 at Coimbatore for rabi season. It matures in about 115-120 days during late kharif and rabi season after transplanting.



Bhima Super

Bhima Super (IC No. 561259) has developed from a base population of cultivar B-780 by exercising selection pressure for single centered bulbs by following eight cycles of selection and attaining 95% of single centered bulbs. Bhima Super is suitable for *kharif* season and can be cultivated during late *kharif* cultivation in the states of Maharashtra, Karnataka, and Gujarat. The variety possesses round bulbs with tapering towards neck. The TSS is from 10-11%. The variety produces quality bulbs with maximum number of single centered bulbs with an average yield of 26-28 t/ha in *kharif* and 40 to 45 t/ha in late *kharif* cultivation. Bulbs attains maturity after 110-115 days.



Bhima Kiran

Bhima Kiran (RO-597) (IC No. 572766) was identified at National level for release during 1st AINRPOG group meeting at CITH, Srinagar during 2010 for two zones viz. Zone III (Delhi, UP, Haryana, Bihar and Punjab) and VI (Maharashtra, Karnataka and AP) for rabi season. Bulb attains immediate light red colour after harvest. Bulbs are oval to round in shape, have very less number of bolters and doubles in rabi (less than 5%), thin neck, TSS 12%, good keeping quality suitable for storage upto 5-6 months. Matures in 130 days after transplanting. The average marketable yield potential is upto 41.5 t/ha during rabi season with national average yield of 30.3 t/ha.



Bhima Shakti

Bhima Shakti (1156) (IC No. 572769) was identified at National level for released during 2nd AINPROG group meeting at Ooty (TNAU, Coimbatore) during 2011 for four zones viz. Zone III (Delhi, UP, Haryana, Bihar and Punjab), Zone IV (Rajasthan and Gujarat), Zone V (MP, Chhattisgarh and Orissa) and zone VI (Maharashtra, Karnataka and Andhra Pradesh) for late *kharif* as well as *rabi* season. Bulbs attains immediate attractive red colour after harvest. Shape is round. Very less number of bolters 2.15% & 0.36% and doubles 5.69% & 1.38% during late *kharif* and *rabi* season, respectively. TSS 11.8%. Small to medium neck thickness, uniform neck fall during *rabi* and more than 70% neck fall during late *kharif*. Very good storage life. Bulbs mature in 130 days after transplanting during late *kharif* and *rabi* season. It is tolerant to thrips. Marketable yield during late *kharif* is 45.9 t/ha and during *rabi* 42.7 t/ha in Maharashtra with national average yield of 29.18t/ha during *rabi* season.



Bhima Shweta

Bhima Shweta (White El. Comp. Selection/ NRCWO-2) (IC No. 572761) was identified at National Level for release during IInd AINPOG group meeting at Ooty (TNAU, Coimbatore) during 2011 for three zones viz., Zone III (Delhi, UP, Haryana, Bihar and Punjab), Zone V (MP, Chhattisgarh and Orissa) and Zone VI (Maharashtra, Karnataka and Andhra Pradesh) for *rabi* season. Bulbs are attractive white in colour, round in shape, very less number of bolters and doubles less than 3% in *rabi* season, thin neck, TSS 11.5%, matures in 110-115 day after transplanting during *rabi*, medium in keeping quality upto 3 months during *rabi* season. Average marketable yield during *rabi* season is 35.9 t/ha with national average yield of 28.2 t/ha. It is tolerant to thrips.



Bhima Shubra

Bhima Shubra (w-009) (IC No. 572763) released at institute level during 2010 for *kharif* and late *kharif* season for Maharashtra region. Bulbs are attractive white in colour, oval to round in shape bulb, have less number of bolters up to 6% during late *kharif* and no bolters during *kharif* and doubles less than 3% in late *kharif* and *krarif* season, thin neck, TSS 10.4% in *kharif* and 11.7% in late *kharif*, matures in 112 day after transplanting during *kharif* and 125 days in late *kharif*. bulbs can be stored for 2-3 months during late *kharif*. It has capacity to tolerate environmental fluctuation, hence can be cultivated in all the three seasons. Average marketable yield during *kharif* is 24.16 t/ha and during late *kharif* 38.9 t/ha can fill the gap for processing from October to February.



Name of the variety/source and Characteristics

Red coloured bulbs

Punjab Selection

PAU, Ludhiana

Bulbs red, globular in shape and measure 5-6 cm dia, average weight 50-70 g. Bulbs are quite firm with good keeping quality. The TSS is about 14%. Average yield is 20 t/ha. Recommended for rabi season.

Pusa Red

IARI, New Delhi

Bulb medium in size, average weight 70-90 g, bronze red in colour, flat to globular shaped and less pungent. Keeping quality is good. Plants mature in 140-145 days after transplanting. TSS is about 12-13%. Average yield is 25 t/ha. It can be grown both in late kharif and rabi season in Maharashtra. Suitable for export purpose.

N-2-4-1

NIPHAD

Average bulb diameter 4-6 cm, brick red colour, shade globular, pungent in taste. Keeping quality good, plants mature in 140-145 days after transplanting. TSS is about 12-13%. Average yield is 30-35 t/ha. Suitable for export purpose.

Pusa Madhavi

IARI, New Delhi

Bulbs medium to large in size, light red in colour and flattish round in shape. Keeping quality is good, plant mature in 130-145 days after transplanting. The average yield potential is 30 t/ha. Recommended for rabi season. Suitable for export purpose.

Arka Niketan

IIHR, Bangalore

Bulbs globular with thin neck, attractive colour, 4-6 cm in size. TSS is 12-14%, pungency and dry matter also high. Good keeping quality. Plant mature in 145 days after transplanting. The average yield is 34 t/ha. Though, it is recommended for rabi season mainly, it can be grown in late kharif also in Maharashtra.

Arka Kalyan

IIHR, Bangalore

Bulbs globose shaped, 4-6 cm size with deep pink coloured outer scales and fleshy succulent concentric internal scales. TSS is 11-12%. Average keeping quality, matures in 100-110 days after transplanting. Average yield is 33.5 t/ha.

Agrifound Dark Red

NHRDF, Nasik

Bulbs are dark red, globular in shape, 4-6 cm in size with tight skin, moderately pungent. TSS is 12-13%. Plant matures in 95-110 days after transplanting. Yield is 30-40 t/ha. Average keeping quality. Recommended for kharif season. Suitable for export purpose.

Agrifound Light Red

NHRDF, Nasik

The bulbs are of globular shape with tight skin, light red colour and 4-6 cm in size. TSS is 13%. It has good keeping quality. Plants mature in 160-165 days after sowing. Average yield is 30-32.5 t/ha. Recommended for growing during rabi all over country. It can be grown in late kharif season also in Nasik district of Maharashtra.

Akra Pragati

IIHR, Bangalore.

The variety has attractive pink coloured, globe shaped bulbs of uniform size with thin neck pungency and early maturity. It matures in 140-145 days after sowing. It yields about 20 t/ha.

N-53

NIPHAD

It is very popular for growing during kharif season all over the country. Bulbs are flattish round in shape, red in

colour, medium to large in size and mildly pungent. TSS is 11-12%. Poor keeping quality. Ready for harvest in 90-100 days after transplanting. Average yield is 25 t/ha. Suitable for export purpose.

Baswant-780

MPAU, Rahuri

Bulbs are flattish round in shape, red in colour, medium to large in size and mildly pungent. TSS is 11- 12%. Keeping quality is poor. Ready for harvest in 90-100 days after transplanting. Average yield is 25 t/ha. Suitable for kharif season in Maharashtra.

Udaipur 101

RAU, Bikaner, Udiapur.

Bulbs are deep red, flattish globular sweet with less pungency. TSS is 12-14%. Plants mature in 150- 160 days from sowing. Average yield is 20-30 t/ha. The variety is recommended for growing in Rajasthan and other adjoining states during rabi season.

Yellow coloured bulbs

Early Grano

IARI, New Delhi

It produces globular bulbs of yellow colour with very pungency, size 7-8 cm. Crop matures in 95-110 days. TSS is 6-7%, poor in storage. Average yield is 500-60 t/ha. Suitable for cultivation in plains during kharif and rabi seasons for salad purpose.

Spanish Brown

RS,IARI, Katrain, Kullu.

Long day variety. The bulbs are attractive grown in colour with mild pungency. TSS is 13-14%. Crop matures in 160-180 days and ready for harvesting during August-September. Good in storage at hills. Average yield is 28-30 t/ha.

Phule Suvarna

MPKV, Rahuri (M.S.)

Suitable for year round cultivation. Yellow coloured variety suitable for export to Europe, Australia and America. Bulbs size medium-big. Less pungent, TSS is 11.5%, excellent keeping quality (4-6 months), suitable for late kharif and rabi season. Average yield is 24 t/ha.

White coloured bulbs

Pusa White Round

IARI, New Delhi

Bulbs are white in colour and roundish flat in shape. TSS 12-13% and drying ratio 8:1. Crop matures in 130-135 days after transplanting. Yield is 30-32.5 t/ha. Good for storage.

Pusa White Flat

IARI, New Delhi

Bulbs are attractive white, flattish round with 12-14% TSS and drying ratio 9:1. Plants mature in 130- 135 days after transplanting. Good for storage.

Udaipur-102

RAU, Bikaner Campus, Udaipur

The bulbs are white in colour, round to flat in shape with low percentage of small bulbs. Size is 4.5-6.5 cm. Matures in 120 days after transplanting. TSS is about 12%. Average yield is 30-35 t/ha.

Phule Safed

MPKV, Rahuri.

Bulb globular in shape with white colour, TSS is 13%. Suitable for dehydration. Average yield is 25-30 t/ha.

N-257-9-1

MPKV, Rahuri

Bulbs are globular shaped and white colour. Good keeping quality. Suitable as a rabi crop in onion growing regions of Maharashtra. Average yield is 25 t/ha.

Agrifound White
NHRDF, Nasik.

The bulbs are globular in shape with tight skin, silvery attractive white colour and 4-6 cm diameter. TSS is 14-15%, good keeping quality. Plant matures in 160-165 days after sowing. Average yield is 20-25 t/ha, suitable for kharif and rabi season. Good variety for dehydration purpose and export purpose.

Small Common Onion

Agrifound Rose
NHRDF, Chickballapur, Karnataka.

The variety is pickling type, grown exclusively for export. Bulbs are flattish round in shape, deep scarlet red in colour and 2.5-3.5 cm size. It matures in 95-110 days from sowing. TSS is 15-16%, Average yield is 19-20 t/ha. Suitable for kharif season in Cuddapah district and all the three season in Karnataka.

Arka Bindu
IIHR, Bangalore

Bulbs are deep pink colour, small size (2.5-3.5 cm) of flattish globe shape. Bulbs free from premature bolters and splits and have high pungency. TSS is 14-16%. Plant matures in 100 days from sowing. Average yield is 25 t/ha. Suitable for export purpose.

Multiplier Onion

Co-1

TNAU, Coimbatore

Medium sized bulbets of red colour, 7-8 bulblets per plant. Average weight of bulblets 55-60 g per clump. Yield 10 t/ha. Cultivated throughout Tamil Nadu. Plants mature in 90 days. Fairly pungent with medium TSS.

Co-2

TNAU, Coimbatore

Moderately bigger size bulblets of crimson colour, 7-9 bulblets per plant. Bulb weight is 60-65 g per clump. Shorter duration than Co-1 i.e. 65 days. Yield is 12 t/ha, pungent with high TSS. Cultivated throughout Tamil Nadu. Good for storage. Moderately resistant to thrips and Alternaria blight.

MDU-1

TNAU, Coimbatore

Uniform and big size bulbs of bright red colour, adapted in southern districts of Tamil Nadu, weight 75 per clump. 10-11 bulblets per plant. Yield is 15 t/ha. Plants mature in 60-75 days. Better keeping quality. Tolerant to lodging due to thick erect leaves.

Agrifound Red
NHRDF, Dindigul

Average bulb size 7.15 cm and weight is 65-67 g. Number of bulblets per clump 5.79 (average). Size of bulblets is 3.94 cm, and weight of single bulblet is 8.85 g. The colour is light red. TSS is 15-16%. It matures in 65-67 days after planting. Yield is 18-20 t/ha.