

Narmada and Dristi

Recently released urdbean varieties for spring cultivation

Debjiyoti Sen Gupta¹ and G P Dixit^{1*}

¹ICAR Indian Institute of Pulses Research, Kanpur, Uttar Pradesh 208 024

This article describes two varieties of urdbean (Narmada and Dristi) released and notified in 2023 for general cultivation during spring season in Madhya Pradesh.

Keywords: Cultivation, Dristi, Narmada, Spring, Urdbean

RABI/Spring urdbean has an area of 1.01 million ha and production of 0.91 million tonnes with an average productivity of 903 kg/ha in 2021-2022. Major states for spring cultivation of urdbean are Uttar Pradesh, Madhya Pradesh, Assam, West Bengal and Odisha. Spring ecology is important because of higher productivity and better quality of produce in urdbean. IPU19-10 (Narmada) has been thoroughly tested in different agro-climatic regions of Madhya Pradesh, alongwith check varieties, IPU13-1, IPU10-26 and KU 96-3. The overall performance of the variety at all locations, showed yield superiority of 16.61%. The variety was tested in Betul, Narsinghpur, and Hoshangabad districts of Madhya

Pradesh. It has wider adaptability, suitable for cultivation across different agro-climatic regions of Madhya Pradesh. Narmada was thoroughly tested in AICRP across all the zones in the country in IVT and AVT 1 during spring 2020 and spring 2021 and its yield varied from 802 kg/ha to 2130 kg/ha. This urdbean variety possess multiple disease resistance. Narmada is highly resistant to mungbean yellow mosaic virus and resistant to urdbean leaf crinkle virus, leaf curl virus, web blight, bacterial leaf blight, powdery mildew and Cercospora leaf spots. Resistance to white fly, pod borer and pod bug insects under field conditions was also observed for Narmada based on multi-location data. It is

further early maturing (74 days) and tolerant to pod shattering. Narmada has attractive black seed colour, bold seeds (4.87 g/100 seeds) with high protein content (20.27%), and is highly palatable. Similarly, IPU17-2 (Dristi) was also thoroughly tested in different agro-climatic regions of Madhya Pradesh, alongwith check varieties, IPU 13-1, IPU 10-26 and KU 96-3. While tested over multi-location, performance of the variety showed yield superiority of 18.33%. The variety was tested in Betul, Narsinghpur, and Hoshangabad districts of Madhya Pradesh during spring 2021. Dristi showed wider adaptability owing to its suitability for cultivation across different agro-climatic regions of Madhya Pradesh. It was also exhaustively tested in



Narmada (IPU19-10)



Dristi (IPU17-2)

Field view and seeds of Narmada and Dristi

Table 1. Yield performance (mean values) (Kg/ha) of Narmada and Dristi during spring 2021 in Madhya Pradesh

Variety	Locations			Average of all the locations	% Superiority over best check
	Betul	Narsinghpur	Hoshangabad		
IPU 19-10 (Narmada)	3117	996	644	1586	16.61
IPU 17-2 (Dristi)	3021	1022	784	1609	18.33

Table 2. Reaction to yellow mosaic disease of IPU 19-10 and IPU17-2 in Advance Varietal Trials (AVT I) at various locations during Spring/Summer 2021

Location	Yellow mosaic disease reaction (1-9 Scale)	
	IPU19-10	IPU17-2
Ludhiana	1	3
SK Nagar	3	2
Lam	3	2
Shillongani	1	1
Kota	0	0
Ayodhya	2	3
Hisar	2	3
Dholi	3	2
Vamban	1	4

AICRP across all the zones in the country in IVT during summer 2021 and 2018-19 and yield varied from 692 kg/ha to 1369 kg/ha. Dristi also carries resistance to various diseases like yellow mosaic disease, urdbean leaf crinkle, leaf curl virus,

web blight, bacterial leaf blight, powdery mildew and *Cercospora* leaf spots. Based on multilocation field data, Dristi exhibited resistance to whitefly, pod borer and pod bugs, thereby having edge over other released urdbean varieties. It is also early maturing (73 days average maturity duration) like Narmada which is a desirable trait for spring urdbean varieties. In addition to the mentioned agronomic superiorities, Dristi has black seed colour, bold seeds (4.90 g/100 seeds) with high protein content (22.14%).

These two varieties are one of the few varieties released for spring cultivation, thereby hold tremendous potential for better performance under this specific ecology in Madhya Pradesh state. The high level of yellow mosaic disease resistance and bold seed size will further add additional edge to these two varieties.

SUMMARY

Urdbean variety 'Narmada (IPU19-10)' has been released and notified for cultivation in Madhya Pradesh under timely sowing condition (Rainfed; Spring season). The variety has a potential yield of 14.7 q/ha and matures within 74 days. It has an attractive black seed colour, medium large seeds (4.87 g/100 seeds) with high protein content (20.27%), good for dal and highly palatable. The variety is highly resistant to mungbean yellow mosaic virus and urdbean leaf crinkle virus. The variety 'Dristi (IPU17-2)' has been released and notified for cultivation in Madhya Pradesh under timely sowing condition (Rainfed; Spring season). The variety has a potential yield of 13.7 q/ha and matures within 73 days. It has attractive black seed colour, large seeds (4.90 g/100 seeds) with high protein content (22.14%), good for dal and highly palatable. The variety is highly resistant to mungbean yellow mosaic virus and urdbean leaf crinkle virus.

*Corresponding author e-mail: diriipr.icar@gmail.com

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TECHNICAL SPECIFICATIONS

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