

Rice varieties developed by ICAR RCER, Patna

Swarna Shreya

This variety was developed by ICAR Research Complex for Eastern Region, Patna released and notified by Govt. of India (**vide notification number S.O. 3540 (E) dated 22nd November 2016**). Swarna Shreya (IET 24003) is drought tolerant aerobic rice variety and recommended for cultivation under aerobic situation in rainfed medium lowland and poorly irrigated areas of **Chhattisgarh, Madhya Pradesh and Bihar**. Swarna Shreya is a semi-dwarf (105-110 cm) variety which flowers in about 85 days and matures in 115-120 days. Direct seeding of *Swarna Shreya* can be done through zero tillage or seed drill machine or manually. Seed of Swarna Shreya is long and bold, having intermediate amylose content. *Swarna Shreya* is resistant to leaf blast and moderately resistant to neck, blast, brown spot, RTD and sheath rot. It also showed moderately resistant against stem borer (dead heart), leaf folder, gall midge (Biotype 1) and whorl maggot under natural screening. Beside drought tolerant, it is also weed competitive variety. Quality wise, this variety possesses high hulling recovery (77.5%), milling (69.2%), head rice recovery (56.2%) with desirable intermediate amylose content (21.87%) and alkali spreading value (ASV=4.0). It has high GC (65.5 mm) with very occasionally chalky indicating good cooking quality. Productivity of *Swarna Shreya* is 2.0-2.5 t/ha under drought condition



Swarna Shakti Dhan

This variety was developed by ICAR Research Complex for Eastern Region, and released and notified by Govt. of India (**vide notification number S.O. 99 (E) dated 6th February 2020**). Swarna Shakti Dhan (IET 25640) is drought tolerant aerobic rice variety and recommended for cultivation under aerobic situation in rainfed medium lowland and poorly irrigated areas of **Bihar, Jharkhand,**



Odisha, Chhattisgarh, Haryana, Gujarat and Maharashtra. This is a high yielding and drought tolerant aerobic rice variety with multiple disease resistance having high Zinc (23.5 ppm) and Iron (15.1 ppm) contents. It has yield potential of more than 4.5 t/ha, and is resilient to change in rainfall distribution. This is an early duration (115-120 days) with semi-dwarf (105-110 cm) plant stature; it shows a high degree of tolerance to sheath blight, false smut, leaf blast, bacterial leaf blight (BLB), neck blast, rice tungro disease, brown spot and sheath rot diseases. It has also shown resistance to stem borer (dead heart and white ears head), leaf folder and plant hopper under natural screening. Quality-wise, this variety possesses high head rice recovery (63.2%), hulling (76.3%), milling (66.4%) with desirable intermediate amylose content (22.5%) and alkali spreading value (ASV=4.0). It has soft GC (59.3 mm) with very occasionally chalkiness indicating good cooking quality. Seed of Swarna Shakti Dhan is short bold type. Productivity of *Swarna Shakti Dhan* is 2.0-2.5 t/ha and 4.5-5.0 t/ha under drought stress and non-stress conditions, respectively.

Swarna Samriddhi Dhan

This variety was developed by ICAR Research Complex for Eastern Region, and released and notified by Govt. of India (**vide notification number S.O. 500 (E) dated 29th January 2021**) for cultivation in the state of **Bihar**. Swarna Samriddhi Dhan (IET 24306) is a medium duration (135-140 days), semi-dwarf, high yielding (5.5-6.0 tha^{-1}), multiple stresses (drought, submergence, disease and insect pest) tolerant, lodging resistant with desirable cooking quality traits and having long slender grain type. Swarna Samriddhi Dhan is suitable for cultivation under transplanted condition in irrigated areas as well as rainfed shallow lowland ecosystems. Quality wise, Swarna Samriddhi Dhan possesses 77.8% hulling, 62.0% milling, 55.6 % head rice recovery (HRR) with desirable intermediate alkali spreading value, amylose content (24.33%) with long slender grain type. Beside drought (reproductive stage) tolerant, this variety can also tolerate 08-10 days submergence. In addition, Swarna Samriddhi Dhan showed moderately resistant to leaf blast, brown spot, sheath blight, false smut diseases and stem borer, leaf folder, and gall midge insect pest under natural condition.



Swarna Sukha Dhan (IET 24692)

Rice variety Swarna Sukha Dhan (IET 24692) was developed by ICAR Research Complex for Eastern Region, Patna and released and notified by Govt. of India (vide notification number S.O. 8 (E) dated 24th December 2021 for cultivation under direct seeded condition in drought prone rainfed areas of **Uttar Pradesh**. It has been also released and notified (notification



number S.O. 1056 (E) dated 6th March 2023) for the cultivation in the state of **Jharkhand**. Swarna Sukha Dhan is an early duration (110-115 days), semi-dwarf, high yielding (3.5-4.0 t ha⁻¹), multiple stresses (drought, disease and insect pest) tolerant, with desirable quality traits and high micronutrient (23.1 ppm Zinc and 11.8 ppm Iron) content. It also possesses desirable cooking quality traits and having medium slender grain type. Swarna Sukha Dhan is suitable for cultivation under direct seeded condition in rainfed midland to upland ecosystem of Uttar Pradesh. Quality wise, Swarna Sukha Dhan possesses 78.4% hulling, 70.9% milling, 68.4 % head rice recovery (HRR) with desirable intermediate alkali spreading value (ASV=4.0), amylose content (22.32%) with medium slender grain type. Rice variety Swarna Sukha Dhan showed moderately resistant to bacterial leaf blight (BLB), false smut, leaf blast, sheath blight, RTD and brown spot diseases and major pests like stem borer, leaf folder, whorl maggot, and brown plant hopper (BPH) under natural condition.

Swarna Unnat Dhan

Swarna unnat Dhan (IET 27892) is a high yielding multiple stresses tolerant rice variety developed by ICAR Research Complex for Eastern Region, Patna, Bihar. It has been released and notified by Govt. of India (vide notification number S.O. 8 (E) dated 24th December 2021) for cultivation under irrigated transplanted condition in the states of **Bihar, Odisha, West Bengal, Madhya Pradesh and Maharashtra** of India. Swarna Unnat



Dhan is an early duration (115-120 days), semi-dwarf, high yielding ($5.0-5.5 \text{ t ha}^{-1}$), multiple stresses (drought, disease and insect pest) tolerant, lodging resistant with desirable cooking quality traits and having long slender grain type. Swarna Unnat Dhan is suitable for cultivation under transplanted condition in irrigated areas as well as water scarcity areas. This is also suitable for cultivation under direct seeded aerobic condition in water scarcity irrigated areas. Quality wise, Swarna Unnat Dhan possesses 77.7% hulling, 67.4% milling, 63.2 % head rice recovery (HRR) with desirable intermediate alkali spreading value, amylose content (24.34%) with long slender grain type. Rice variety Swarna Unnat Dhan showed moderately resistant to Bacterial leaf blight, false smut, sheath rot, leaf blast and brown spot diseases and major pests like stem borer, BPH and gallmidge under natural condition.

Swarna Purvi Dhan 3

Swarna Purvi Dhan 3 (IET 28329) is a high yielding multiple stresses tolerant rice variety developed by ICAR Research Complex for Eastern Region, Patna, Bihar. It has been released and notified by Govt. of India (**vide notification number S.O. 4065 (E) dated 31st August 2022**) for cultivation under irrigated transplanted condition in the states of [Haryana](#), [Rajasthan](#), [Bihar](#), [Uttar Pradesh](#), [Chhattisgarh](#) and [Maharashtra](#). Swarna Purvi Dhan 3 is a high yielding rice variety with multiple biotic and abiotic stress tolerance and desirable grain quality traits. Swarna Purvi Dhan 3 is an early duration (115-120 days), semi-dwarf, high yielding ($5.0-5.5 \text{ t ha}^{-1}$), multiple stresses (drought, disease and insect pest) tolerant, lodging resistant with desirable cooking quality traits and having long slender grain type. Swarna Purvi Dhan 3 is fertilizer responsive, resistant to lodging and shattering, and tolerant to multi-stages drought stress and is also suitable for direct seeded aerobic conditions. Quality wise, IET 28329 showed desirable quality parameters like high hulling (80.1%), milling (71.05%), high head rice recovery (HRR) (64.7%), desirable amylose content, alkali spreading value, a soft GC and long slender grain type. In addition, IET 28329 showed moderately resistant to Bacterial leaf blight (BLB), leaf blast, neck blast, sheath blight, brown spot, false smut, sheath rot and glume discoloration diseases and stem borer, leaf folder, BPH and Gall Midge (Biotype 1) insect pests under natural conditions.



Swarna Purvi Dhan 1

Swarna Purvi Dhan 1 (IET 24660) is a drought tolerant aerobic rice variety, released and notified by Govt. of India (**notification number S.O. 1056 (E) dated 6th March 2023**) for the cultivation in the state of **Jharkhand**.

This rice variety is an early duration (115-120 days), semi-dwarf, high yielding ($4.5\text{-}5.0\text{ t ha}^{-1}$), multiple stresses (drought, disease and insect pest) tolerant. It has desirable cooking quality traits and high micronutrients i.e., zinc (20.4 ppm) and iron (13.8 ppm) content. Swarna Purvi Dhan 1 is suitable for cultivation under direct-seeded aerobic condition in water limiting irrigated as well as drought-prone rainfed area. This variety showed desirable quality parameters like high head rice recovery (68.3%), intermediate amylose content, and a soft GC with very occasionally chalky and short bold grain type. Rice variety Swarna Purvi Dhan 1 showed moderately resistant to leaf blast, neck blast, sheath rot, brown spot, sheath blight, false smut, and RTD diseases and major pests like stem borer, leaf folder, gall midge (biotype 1), whorl maggot and plant hopper under natural condition.



Swarna Purvi Dhan 2

Swarna Purvi Dhan 2 (IET 26767) is a high yielding rice variety with multiple stress (drought, disease and insect pest) tolerant and desirable quality traits. It has been released and notified by Govt. of India (**notification number S.O. 1056 (E) dated 6th March 2023**) for the cultivation in the state of Jharkhand. This variety is suitable for cultivation under transplanted condition in irrigated ecology of **Jharkhand**.



Swarna Purvi Dhan 2 is semi-dwarf, high yielding ($5.0\text{-}5.5\text{ t ha}^{-1}$), early duration (115-120 days), multiple stresses tolerant, fertilizer responsive, lodging resistant with desirable cooking quality traits and having long slender grain type. This variety is also suitable for direct seeded aerobic condition. This variety showed desirable quality parameters like high head rice recovery (62.2%), intermediate amylose

content, and a soft GC with very occasionally chalky and long slender grain type. Rice variety Swarna Purvi Dhan 2 showed moderately resistant to leaf blast, bacterial leaf blight (BLB), sheath blight, leaf scald, Glume discoloration and false smut diseases and major pests like stem borer, leaf folder, rice thrips, gall midge (biotype 5), and caseworm under natural condition.

Swarna Shusk Dhan

Swarna Shusk Dhan (IET 27962) is a high yielding rice variety with drought, disease and insect pest tolerant and desirable quality traits. It has been released and notified by Govt. of India (**notification number S.O. 1056 (E) dated 6th March 2023**) for the cultivation under direct seeded condition in drought prone rainfed midland to



upland ecosystem of **Uttar Pradesh**. Swarna Shusk Dhan is semi-dwarf, high yielding (4.0-4.5 t ha⁻¹), early duration (110-115 days), multiple stresses tolerant, fertilizer responsive, lodging resistant with desirable cooking quality traits and having long slender grain type. This variety is also suitable for direct seeded aerobic condition. This variety showed desirable quality parameters like high head rice recovery (59.69%), intermediate amylose content (24.89%), and a soft GC with very occasionally chalky and long slender grain type. Rice variety Swarna Shusk Dhan showed moderately resistant to leaf blast, neck blast, sheath rot and false smut diseases and major pests like stem borer and, leaf folder under natural condition.

Swarna Purvi Dhan 4

Swarna Purvi Dhan 4 (IET 29405) is a drought tolerant aerobic rice variety, released and notified by Govt. of India (**notification number S.O. 4388 (E) dated 8th October, 2024**) for the cultivation in the state of **Bihar, Jharkhand, Gujarat and Haryana**. This rice variety is an early duration (115-120 days), high yielding (4.5-5.0 t ha⁻¹), multiple stresses (drought, disease and insect pest) tolerant. Swarna Purvi Dhan 4 is suitable for cultivation under direct-seeded aerobic condition in



water limiting irrigated as well as drought-prone rainfed area. This variety showed desirable quality parameters like high head rice recovery (61.9%), intermediate amylose content (23.2%), alkali spreading value (ASV=4.0) and a soft GC (38.7 mm) with very occasionally chalky and long bold grain type. Rice variety Swarna Purvi Dhan 4 showed resistant to neck blast and moderate resistant to leaf blast, brown spot, sheath blight, bacterial leaf blight, sheath rot and glume discoloration diseases and major pests like stem borer, leaf folder, gall midge (biotype 4M), whorl maggot and caseworm under natural condition.

Swarna Purvi Dhan 5

Swarna Purvi Dhan 5 (IET 29036) is a high yielding rice variety with drought, disease and insect pest tolerant and desirable quality traits. It has been released and notified by Govt. of India (notification number S.O. 4388 (E) dated 8th October, 2024) for the cultivation under direct seeded condition in drought prone rainfed as well as water limiting areas of **Bihar,**



Jharkhand and West Bengal. Swarna Purvi Dhan 5 is semi-dwarf, high yielding (4.0-4.5 t ha⁻¹), early duration (110-115 days), multiple stresses (drought, disease and insect pest) tolerant. It has desirable cooking quality traits, and high micronutrients *i.e.*, zinc (25.5 ppm) and iron (13.1 ppm) contents. This variety is also suitable for direct seeded aerobic condition. This variety showed desirable quality parameters like high head rice recovery (59.7%), intermediate amylose content (21.7), alkali spreading value (ASV=5.0), and a soft GC (49.3 mm) with very occasionally chalky and short slender grain type. Rice variety Swarna Purvi Dhan 5 showed resistant to neck blast and stem rot and, moderate resistant to leaf blast, brown spot, and sheath rot diseases and major pests like stem borer, leaf folder, gall midge and rice thrip under natural condition.