



# US 312

Proper agronomic management is essential to exploit the full potential of hybrids. Hybrids should not be exposed to extremely low or high temperatures especially at the panicle initiation and flowering stages. The package of practices for cultivation of US-312 is given below.

Season		
Kharif	June 1st -2nd Week	July 1st - 2nd Week
Rabi	November 3rd – 4th Week	December 3rd - 4th Week

**Note:** Sowing and transplanting time may slightly vary depending on locations and season

1. Hybrid Rice Seed	6 Kg/Acre
2. Farmyard manure or Green Manure	5-6 tons
3. Chemical fertilizers*	
Urea	90 kg/Acre
D.A.P.	50 Kg/Acre
M.O.P.	50 Kg/Acre
Zinc	12 Kg/Acre

\* Fertilizers recommendations may slightly vary from soil to soil and location to location. Need-based application of zinc and iron is also recommended for better yields.

## Nursery Management

Nursery Management for hybrids is quite different from that of high yielding varieties. This is essential to economize the seed requirement and to obtain multi-tillered healthy seedlings at the time of planting. Prepare nursery area thoroughly by repeated ploughing, puddling and uniform levelling. Prepare seed beds of one meter width and any length as per convenience and provide adequate drainage facility. Apply 250 kg FYM, 2 kg Urea, 1.5 kg DAP and 0.5 kg MOP for every 100 Sq.m. area.

Soak 6 kg of hybrid seeds in water for 8-10 hours and treat the pre-soaked seeds with carbendazim (50% WP) @ 4 g/kg of seed. Incubate the seeds in gunny bags for 18-24 hours to ensure better sprouting and sow the sprouted seeds sparsely and uniformly @ 20-25 g of seed per square meter area. Total area required for sowing 6 kg of hybrid seed is 400 Sq.m.

Do not allow the seed beds to dry. When the seedlings become 2 cm tall maintain thin film of water. Need based weeding can be done and apply 1.5 kg of Urea per 100 Sq.m. area after 15 days. Take need-based plant protection measures to raise multitillered healthy seedlings. With better management, it is possible to get 4-5 basic tillers per plant in 25 days.

## MAIN FIELD MANAGEMENT

### Transplanting

Prepare main field thoroughly by repeated ploughing followed by puddling and apply the recommended dose of FYM two weeks before transplanting. Apply 50% of Urea, complete dose of DAP and MOP a day before transplanting followed by thorough levelling. Transplant 21-25 days old seedlings at the rate of 1 seedlings per hill at 2-3 cm depth. The spacing of 20 x 15 cm is essential to ensure a plant population of 33 per square meter area.

Extensive research work on rice hybrid by SeedWork has resulted in the release of US 312. This hybrid is notified and have been released for cultivation in irrigated tracts of many states.

Maturing in 120-125 days it is a semi-dwarf (105 cm) hybrid with resistance to blast. The hybrid produces large panicles with long slender grains and has acceptable cooking quality. The potential yield of this hybrid is about 2.8-3 tons/acre when grown under normal conditions.

### Weed Management

Apply Pretilachlor @600ml/acre between 0-3 days after transplanting. Ensure a uniform level of 2-3 cm of water in the field for 3-4 days. Need based hand weeding has been recommended to ensure healthy crop.

### Nitrogen Management

Apply 25% of the recommended dose of Urea at 30-35 days (maximum tillering stage) after planting and the remaining 25% at 70-75 days (booting stage) after transplanting.

### Water Management

Maintain 2-3 cm level of water for initial 30 days and later increase the water level to 4-5 cm when the crop reaches maximum tillering stage and drain out water for 4-5 days so that emergence of late tillers can be suppressed. Drain out water completely 10 days before harvest.

### Disease and Insect Pest Management

**Blast:** Apply Zineb 68% +Hexaconazole 4% WP (3-4 g/l) or carbendazim 50 WP @ 0.1 % (1 g/l) and use 180-200 litres of spray fluid. Delay topdressing of N fertilizers when infection is seen.

**Sheath blight:** Foliar application of carbendazim 50 WP @ 0.1% (1 g/l) is recommended to check the disease.

**False smut and grain discoloration:** Apply Clorothalonil 75% WP @ 1.6-2 gm/ltr water, 2-3 times in 7 days interval. Reduce nitrogen application

**Bacterial leaf blight:** In leaf blight prone areas, reduce nitrogen application. Apply nitrogen fertilizer in two or more split doses at maximum tillering and panicle initiation stages. Spray Streptocycline 9:1SP 120g + Copper oxychloride 500g/acre at early root stage. If necessary, repeat 15 days later.

**Stem borer:** Nursery (Moderate to severe - 2 to 3 moths/m<sup>2</sup>): Apply carbofuran or phorate granules @ 1-1.25 kg a.i./ha or spray monocrotophos, quinalphos, endosulfan or chlorpyrifos @ 0.5 kg a.i./ha.

Planting to pre-tillering Cartap Hydrochloride 4%G, 8-10kg /acre or Chlorantraniliprole 0.4% GR (Ferterra) 4kg /acre.

**White backed plant hopper (10 insects/hill):** Spray acephate @ 1.5 g or monocrotophos @ 2.2 ml or ethofenprox @ 2.0 ml or fenobucarb @ 2.0 ml or imidacloprid @ 0.25 ml or thiamethoxam @ 0.2 g or Buprofurin 1.6ml per litre of water. Spray fluid (200 litres/acre) should be directed towards the base of the plant.

### Harvesting, Threshing and Yield

Drain out water from the field when grains in the lowest portion of the panicle are in the dough stage (about 20 days from 50% flowering). Allow the grains to harden. Harvest 30-35 days after flowering when 80-85% of the grains turn golden yellow and stalks remain green to avoid grain shedding. Thresh as early as possible preferably a day after harvest. Dry gradually under shade and not direct drying under the sun until the moisture content is brought down to 12-14 per cent, which ensures better milling quality and storage.

\*The results of above mentioned agronomy practices may vary depending upon the climatic conditions, soil type and other uncontrollable factors.