



भारतीय चावल अनुसंधान संस्थान

(भारतीय कृषि अनुसंधान परिषद)

राजेंद्रनगर, हैदराबाद-५०० ०३०

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Dr V. RavindraBabu

Director

DO/PD/ PMEC 445/ RTI/ 2016

28th January, 2016.

Dear Sir,

Sub: "RTI information on Rice in Gujarat State"-Regarding.

* * *

With reference to yourmail dated 22nd January 2016, please find enclosed the information requested under RTI.

Yours sincerely

(V. RavindraBabu)

To,

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RTI Question : "Bajra, Rice and Maize crops -their native names , family and diseases, pest prevalent & its mitigation in the state of Gujrat"

Native Names: "Choka", "Dhan", "Bhath"

Major pests found in Gujarat are:

1. Stem borer
2. Leaf folder(LF)
3. White backed plant hopper(WBPH)
4. Leaf sheath mite and
5. Army worm

For their effective management following measures have been recommended.

Pests	Symptoms	Control
Stem Borer	<ul style="list-style-type: none">✓ Deadhearts or dead tiller that can be easily pulled from the base during the vegetative stages✓ Whiteheads during reproductive stage where the emerging panicles are whitish and unfilled or empty✓ Tiny holes on the stems and tillers✓ fecal matters inside the damaged stems	Apply Carbofuran -3G @ 25kg./ha or Car tap 4G @20 kg. /ha at 20-25 and 40-45 days after transplanting.
Leaf Folder	<ul style="list-style-type: none">✓ Longitudinal and transparent whitish streaks on damaged leaves✓ Tubular folded leaves✓ Leaf tips sometimes fastened to the basal part of leaf✓ Heavily infested fields appear scorched with many folded leaves	Phosphamidon@0.03% or monocrotophos@0.036% or Car tap 50 % wp. @0.3 kg. a.i./ha or Acephate -75 SP or Trizophos -40 EC. @ 0.50 kg. a.i./ha.
WBPH	<ul style="list-style-type: none">✓ Hopperburn or yellowing, browning and drying of plant✓ Ovipositional marks exposing the plant to fungal and bacterial infections✓ Ragged stunt or grassy stunt virus disease plant may be observed	Apply Monocrotophos-36 EC @ 0.375 kg. a.i./ha. + DDVP -76 EC @ 0.25 kg. a. i./ ha. In addition to this spraying of Imidachloprid @ 0.005% or Fenobucarb @ 0.07% first at 15 days after transplanting
Leaf Sheath Mite	<ul style="list-style-type: none">✓ The damage results in the appearance of yellowish brown specks which increase under severe conditions and the whole leaf turns to grayish white and dry up.✓ Usually, the initial symptoms of damage is from the periphery of the rice field and later depending upon wind speed directions, the intensity of leaf area loss is	Dicofol @ 5.0 ml or wettable Sulphur @ 3 g /l of water

	manifested.	
Army Worm	<ul style="list-style-type: none"> ✓ Damage is caused by larvae feeding on leaves from edges, leaving only the midrib and stems. ✓ In severe infestation, entire seed beds and fields are destroyed and appears r as if it has been grazed by animals. 	Dusting of Methyl parathion 2% dust or Carbaryl 5% @ 25 Kg./ha. at evening time.
Cutworm	<ul style="list-style-type: none"> ✓ Seedlings cut at bases ✓ Leaf surfaces skeletonized ✓ Entire plants devour 	Apply need based Monocrotophos or Quinalphos @ 1 ml./liter or Carbaryl 5% @ 4 g./liter of water

Major Diseases of Rice in Gujarat

1. Bacterial blight (BB)
2. Blast (BI)
3. False smut (FS) and
4. Grain discoloration (GD) are the major diseases threatening the rice production.

For their effective control following measures are to be taken.

Disease	Symptoms	Control
BLAST:	<ul style="list-style-type: none"> ✓ Typical leaf lesion is spindle shaped, usually with redish yellow margin; grey in the centre. ✓ Leaves of susceptible variety may be killed. The fungus may also attack the stems at the node which turn dark brown to blackish in colour and tend to break easily. ✓ Lesions may also occur on panicle neck. The infected necks turn blackish and breakover. Neck blast results in few or no seeds in the panicle. 	Spray 0.045% Tricyclazole - 75 WP or 0.05% Carbendzim-50WG or 0.05% Edi- phenphos - 50EC first at the appearance of the disease second and third at 10 days interval @ 500lit. /ha.
Bacterial Leaf Blight	<ul style="list-style-type: none"> ✓ Water-soaked to yellowish stripes on leaf blades or star ting at leaf tips then later increase in length and width with a wavy margin ✓ Appearance of bacterial ooze that looks like a milky or opaque dewdrop on young lesions early in the morning ✓ Lesions turn yellow to white as the disease advances ✓ Lesions later become grayish from growth of various saprophytic fungi 	Spray Streptocycline 1 g. or Paushamycin 4g. + 10g. of Copper oxychloride in 20 lit. of water as and when required (400 to 500 lit. /ha).
False Smut	<ul style="list-style-type: none"> ✓ Individual rice grain transformed into a mass of velvety spores or yellow fruiting bodies ✓ Growth of velvety spores enclose 	Spray 0.25% Mancozeb- 75 WP or 0.05% Carbendazim-50WP or 0.25% Chlorothalonil-

	floral parts ✓ Immature spores slightly flattened, smooth, yellow, and covered by a membrane ✓ Only few grains in a panicle are usually infected and the rest are normal	75WP or 0.025% Propiconazole-25EC@ 500 lit./ha
Grain Discoloration	✓ At this time normal grain color changes to brownish white color	Spray 0.225% Mancozeb-75 WP at PI stage twice or thrice At 10 Days Interval @500lit./ha
Brown Spot	✓ Many dark brown elliptical spots on leaves; infects coleoptiles of seedling and causes blighting; infected kernel shriveled.	Spray 0.045% Tricyclazole - 75 WP or 0.05% Carbendzim-50WG or 0.05% Edifenphos - 50EC first at the appearance of the disease second and third at 10 days interval @ 500lit. /ha.