

**GOVERNMENT OF INDIA  
AGRICULTURE  
LOK SABHA**

UNSTARRED QUESTION NO:4597  
ANSWERED ON:07.12.2010  
USE OF PESTICIDES AND FERTILIZERS  
Mohan Shri P. C.

**Will the Minister of AGRICULTURE be pleased to state:**

- (a) whether there are reports that the presence of arsenic in boro variety of rice has reached an alarming level;
- (b) if so, the details thereof;
- (c) whether the Government has conducted any study in this regard; and
- (d) if so, the outcome thereof?

**Answer**

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND MINISTER OF STATE IN THE MINISTRY OF CONSUMER AFFAIRS, FOOD & PUBLIC DISTRIBUTION (PROF. K.V. THOMAS)

(a) & (b): The arsenic content in the boro paddy grain varies from 0.16 to 0.58 mg per kg dry weight, which does not exceed the WHO permissible limits (1.0 mg per kg).

(c) & (d): Studies have been conducted on the arsenic problems in different districts of West Bengal. Detailed work is in progress at Bidhan Chandra Krishi Vishwavidyalaya, Kalyani; National Botanical Research Institute (NBRI), Lucknow and Rice Research Station, Chinsurah. The following Rice Varieties accumulating less arsenic have been identified:-

1. Shatabdi
2. Nayanmoni
3. IET 192296

Suitable steps to reduce arsenic toxicity in rice are as follows:-

1. Discouraging irrigation/drinking water from shallow tube wells.
2. Digging deep tube wells (having lesser arsenic) for drinking water and irrigation.
3. Use of recommended doses of organic manure and lime to reduce the arsenic uptake.
4. Identification and use of rice varieties which accumulate lesser arsenic.

Another sub project on "Arsenic in Food-Chain: Cause, Effect and Mitigation" under National Agricultural Innovation Project (NAIP) is also in progress at Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia as Lead center; Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbihar; West Bengal University of Animal and Fishery Sciences, Belgachia; Indian Veterinary Research Institute research station at Belgachia; Central Inland Fisheries Research Institute (ICAR), Barrackpore and DN Guha Majumder Research Foundation, Kolkata.

Central Rice Research Institute, Cuttack (ICAR) has initiated studies on management aspects for ameliorating arsenic in rice grain grown with arsenic contaminated waters.