



# CROP AND WEED SCIENCE NEWS

Published by Crop and Weed Science Society, Department of Agronomy,  
Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya,  
Mohanpur-741252, Nadia, West Bengal, India.

January, 2006

Special Issue



- First International Weed Science Seminar on 'Innovative Approaches for Eco-Safety Weed Management' was organised by West Bengal Weed Science Society, presently renamed as Crop and Weed Science Society, BCKV, Nadia, W.B. and Eastern India Pesticides Association, Kolkata at Hotel Peerless Inn, Kolkata on 21-24 January, 2005. Prof. D. K. Bagchi, Vice-Chancellor, BCKV, inaugurated the Seminar. Eminent scientists from different parts of the country, as well as, the world attended the Seminar.
- First Annual Conference of West Bengal Crop and Weed Science Society (presently Crop and Weed Science Society) and Training on Advanced Nutrient and Pest Management were held at Farmers' Training Centre, BCKV, Kalyani on 11th May, 2005.



- 'Parthenium Awareness Day' was organised by West Bengal Weed Science Society (now Crop and Weed Science Society) on 3rd September, 2005 at Uttar Chandamari Village, Nadia, West Bengal [Inset- *Zygogramma bicolorata* - controlling Parthenium.].

Materials intended for publication in the Newsletter may please be submitted to the Editor, Prof. A. P. Patra, Department of Agronomy, BCKV, Mohanpur, W. B.  
E-mail: ajitp\_bckv@yahoo.co.in

## Research Highlights

Groundnut cv. TAG 24 is to be grown for vegetable oil, and cv. ICGS 49 for confectionary with gypsum @ 250 and 400 kg/ha, respectively, to be applied half at sowing and rest half at earthing up. Groundnut can be grown on residual fertility of potato applied with 100:100:100 kg N : P<sub>2</sub>O<sub>5</sub> : K<sub>2</sub>O/ha (Prof. R.C. Samui, BCKV).

Seed treatment with 1 ppm cobalt sulphate solution improved nodulation and yields components, and thus increased the yields of summer groundnut. No residual toxicity of cobalt was observed (Prof. G. Sounda, BCKV).

**Kharif legumes as good substitute of rice crop** : In upland Gangetic alluvial soil of West Bengal, *kharif* legumes produced more rice equivalent yields than direct-seeded rice. Soybean was the most productive, followed by cowpea, groundnut and blackgram. Residual fertility of *kharif* legumes increased the yield of following wheat crop, resulting the highest total wheat equivalent yield in soybean-wheat, followed by cowpea-wheat, blackgram-wheat and groundnut-wheat cropping systems; rice-wheat producing the lowest equivalent yield (Prof. A. P. Patra, BCKV).

The alkaloid Sanguinarine and 11-Oxotriacontanoic acid of Mexican Poppy can cause blindness to human.

*Nasturtium officinale* (Water Cress) is a very good salad plant and is cooked as green vegetable.

The underground corm of *Eleocharis duffii* or *E. tuberosa* or *E. acicularis* is a main ingredient in meat and fish dishes, and in preparation of Chop suoy, and is used as a biological control of *Typha* (Hogla) or *Eichhornia* (Water hyacinth).

Akand (*Calotropis gigantea*) and cucumber stem and leaf leaches showed allelopathic effect on broadleaf weeds (Prof. R. K. Ghosh, BCKV).

## Current News

### Variety :

To be released (ICAR) - **Wheat** : HI 1531, DBW 16, HD 2888, NIAW 971, PBW 533, AKDW 2997-16, DDK 1025; **Barley** : RD 2660.

**Hybrid : Tomato** : MHTM 203, MHTM 256, S 41 (Gotia); **Ridgegourd** : Surekha; **Gourd** : MPH 1; **Cabbage** : 139, **Rice** : 5445 (Suruchi).

**Jute** (*C. capsularis*) : Bidhan 1, 2 and 3 (Prof. A. K. Basu, BCKV).

### Insecticide :

Propargite 57% a.i. (Simbad)-broad spectrum acaricide, Thiamethoxam 25% WG (Maxima) - broad spectrum systemic insecticide, Profenofos 50% EC (Carina 50EC) - effective larvicide and acaricide.

### Biofertilizer :

Jinong - Humic acid organic liquid fertilizer, Delmuses - Humic acid fertilizer.

### Herbicide :

Imazosulfuron, Carfentrazone ethyl, oxadiargyl, Cynosulfuron and Pretilachlor for rice; Clodinafop-Propargyl for wheat; S-Metolachlor for soybean; Prometryn for potato, groundnut, sunflower and pea; Triasulfuron for rapeseed-mustard, sunflower and soybean (Prof. R. K. Ghosh, BCKV).

Clethodim, Clopyralid and readymix of Clopyralid + MCPA for canola and flax; Fluroxypyr for sorghum, maize, sweet corn, pasture and ornamental plants; Propoxycarbazole Sodium salt for cereal crops; Readymix of Iodosulfuron + Fonamsulfuron and readymix of S-Metolachlor + Mesatrine for corn; Dimethenamid - P for sugarbeet, potato and onion; Flumeoxazin for soybean [Syngenta Crop Protection Ltd.] (Prof. A. Bhattacharya, BCKV).

## Crop and Weed Science Society

### Executive Body

#### President

Dr. B. B. Mandal

#### Vice President

Dr. S. S. Mandal,  
Dr. A. Bhattacharya,  
Dr. A. Basu

#### Working President

Dr. B. K. Mandal

#### Secretary

Dr. R. K. Ghosh

#### Joint Secretary

Dr. D. Pal, Mr. S. Saha

#### Treasurer

Dr. P. Bandyopadhyay

### Newsletter

#### Editor

Dr. A. P. Patra

#### Asstt. Editor

Dr. B. C. Patra



**Wild Groundnut (*Arachis glabrata*) a promising forage legume :**

It is a perennial legume grown during rainy season producing 55.0 t/ha of green forage from 5 cuts (on firm trial). It contains 18% CP, 14% DM and is rich in Ca and P with digestibility of 70% (Prof. A. K. Mukherjee, BCKV).

**Jatropha :**

Jatropha oil is used as substitute or mixed with fossil oil, and it reduces pollution. Its cultivation improves the waste land. The stem cuttings are treated for rooting, and firstly grown in nursery bed, and then transplanted in the field or as living hedge. The plants flower 10-12 months after planting during September - October, and fruit matures during March - April. It yields 1.0-1.5 t/ha of seed in field and 1.0 kg/m hedge. The seed contains 30-35% oil (Prof. B. K. Mandal, BCKV).

**Protecting Environment**

Vide Greenpeace India. E. Bulletin, Website - [www.greenpeaceindia.org](http://www.greenpeaceindia.org)

**Calender of Events :**

- A farmers' day on 'Wetlands : Conservation and Wise Use' will be organised by the Department of Agronomy, BCKV on 18th February, 2006 at Farmers' Training Centre, BCKV, Kalyani.
- First Biennial Conference of Crop and Weed Science Society and training on 'System of Rice Intensification - Round Table Discussion on Organic Rice Agriculture' will be held at Farmers' Training Centre, BCKV on 21st April, 2006.
- EWRS Crop-Weed Interactions working group workshop will be held in Rothamsted, UK on 23-25 April, 2006.
- Fourteenth International Conference on Aquatic Invasive Species will be held in Key Biscayne, Florida, USA on 14-19 May, 2006.

For membership of the Society Please Contact Secretary, Crop and Weed Science Society, Dept. of Agronomy, BCKV, Mohanpur, E-mail: [rkgbckv@yahoo.com](mailto:rkgbckv@yahoo.com)/[rediffmail.com](mailto:rediffmail.com)

- Fifteenth Australian Weed Conference : Managing Weeds in a Changing Climate will be held in Adelaide Convention Centre, South Australia on 24-28 September, 2006.
- Fourth International Conference on Biological Invasions:NEOBIOATA from Ecology to Conservation will be held in Vienna, Austria on 24-28 September, 2006.

**Eco-safety Weed Management :**

- To use Spenthop, young *Polygonum*, *Parthenium* and *Xanthium* sp. as mulching in upland crops, and to be incorporated at 18-21 DAS.
- To use Glyphosate @ 7.5 ml/lit of water or Paraquat dichloride @ 5 ml/lit of water in fallow land 3 weeks before sowing of crops (Prof. R. K. Ghosh, BCKV).

**Boutique (Organic) rice :**

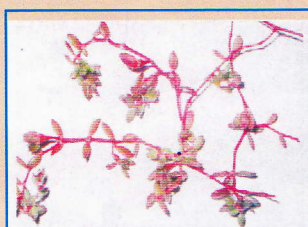
Combining glutinous and aromatic character the boutique rice is obtained.

**Bio-Herbicides :**

Insect / Bio-agent	Plant
<i>Zygogramma bicolorata</i>	Parthenium
<i>Neochetina eichhornia</i>	Water Hyacinth ( <i>Eichhornia</i> )
<i>Halitica cyania</i>	Ban Labonga ( <i>Ludwigia</i> )
<i>Bactra verutana</i>	Mutha ( <i>Cyperus</i> )
<i>Telionima</i> spp.	Lantana
Source	Weed controlling chemical
Decaying of Straw	Aliphatic acid
Bialophos genes	Phosphinothricin
Coffea arabica	1, 3, 7-trimethyl xanthine
Sorghum root	Dhurin (Glucoside)
Apple root	Phlorazin (Flavonoid)

**Invasive Weeds :**

Wild rice	<i>Echinochloa oryzicola</i>	Rice field
Shyama ghash	<i>Echinochloa formosensis</i>	Rice field
Wild Mutha	<i>Cyperus serotinus</i>	Rice field
BJP weed	<i>Elatine triandra</i> var. <i>Pedicellata</i>	Vegetable field
Arrow weed	<i>Sagittaria trifolia</i>	Road side / Fallow
Lal kesuth	<i>Eclipta prostrata</i>	Fallow land



← *Elatine triandra*

*Echinochloa formosensis* →

(Prof. R. K. Ghosh, BCKV)



Shangnong xiangnus, the japonica waxy-aromatic boutique rice has the yield potential of 7.5 t/ha. (Source : FAO, Magazine : Spot light Big Money in Speciality Rices - Agriculture - 21).

**Training Programme**

- A Training Programme on 'Improved and Cost Effective Retting Technique of Jute' was organised by Department of Agronomy, BCKV and Indian Jute Industries Research Association (IJIRA) on 18-21 July, 2005 at Farmers' Training Centre, BCKV to the Personnels of IJIRA.