- (b) whether it is a fact that GM food is facing stiff opposition from Environment and Forests Ministry and the Planning Commission as well but GM Technology in non-edible agro products like cotton has fewer objections of the plan panel; and
- (c) whether there is any possibility of India's crop exports could be hit if it allowed GM food crops?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) Several GM food crops such as; brinjal, rice, okra, potato, groundnut, tomato, corn, cabbage, cauliflower, mustard and sorghum expressing different traits are under various stages of R & D and field testing with the approval of the Review Committee on Genetic Manipulation (RCGM) of Department of Biotechnology (DBT) and the Genetic Engineering-Approval Committee (GEAC) of the Ministry of Environment and Forests (MOEF), Government of India.

- (b) The Government of India has strict guidelines to test and approve GM crops including GM food crops. These guidelines address all concerns being raised by those opposing GM foods. MOEF has not opposed the introduction of GM food crops in India.
- (c) Bt Cotton is the only transgenic crop approved by the GEAC for commercial cultivation in India. Export of cotton has not been affected due to release of Bt cotton in India.

Development of new seeds

†1492. SHRI RAJ MOHINDER SINGH MAJITHA:

SHRI SHIVANAND TIWARI:

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether it is a fact that there is a need to develop new seeds by research keeping in view the agricultural problems of the country;
 - (b) if so, the response of Government in this regard;
- (c) whether the new seeds have been developed according to the agricultural needs of the country during the last three years;
 - (d) if so, the names of the seeds and the situations in which they are advantageous; and
 - (e) the quantity in which they are available in the country for use?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) and (b) Yes, Sir, improved varieties/hybrids with more productivity with superior attributes are being developed and it is a continuous process.

- (c) Yes, Sir.
- (d) List of improved varieties/hybrids is given in the enclosed Statement (See below).
- (e) About 592.83 Lakh quintal certified/quality seeds of improved varieties of field crops was made available for the three years.

[†] Original notice of the question was received in Hindi.

Statement

List of improved varieties/hybrids released during last three years

A. Cereal crops

Wheat

HI 1531 (Harshita), NIAW 917 (Tapovan), DBW 16, HD 2833 (Pusa Wheat 105), HD 2888 (Pusa wheat 107), PBW 533, AKDW-2997-16 (Sharad), DDK 1025 and RD2660, VL 892, HPW 251, PBW 550, WH 1021, HI 1544, HD 2932 and HI 8663, Durum wheat - AKDW-2997-16 (Sharad), Dicoccum wheat - DDK 1025

Maize

HM 4. HM 5, COH (M)-4, HQPM-1, Composites - Birsa Makka-2, Shalimar KG Maize-1, Shalimar KG Maize-2 and Birsa Makka-2, FH 3288 (Vivek 27), FH 3248 (Vivek 25), JH 3892 (PAU 352), HKI 1191 (HM 9), HKI 1188 (HM 8), V 33 (Malviya maka-2), NECH 128 (NK 21), HQPM 5 and NECH 129 (NK 61), PMH3, HM10, HM8, PRO 368 and Vivek maize hybrid 33, Pant Sankul Makka3, Bajaura Makka, Chandramani and Pratap Kanchan, HQPM - 7 and Vivek - 9 QPM

Rice

Improved Pusa Basmati 1 (Pusa 1460), JKRH 401, Abhishek, Shusk Samrat, Virender, VL Dhan 86, Bhuthnath, Indra, Pardhiva, Sree Kurma, Warangal Sannalu, Chandrama, Jaldubi, Chandrahasini, Samleshwari, Indira Sona (Hybrid), Haryana Sankar Dhan 1, Phule Radha, Pariphou, Ginphou, VL Dhan 209 and VL Dhan 65 Satya Krishna, Nua Kalajeera, Nua Dhusara, Hanseswari, Chandan, Naina, Jarava, Warangal Samba, NDR 1045-2, NDR 8002 and DRRH-2, Pratikshya, Sidhanta, Jogesh, Uphar, Sahyadri-2 (Hybrid), Sahyadri-3 (Hybrid), Karjat-5, Karjat-6, Vytilla 6, Rajalaxmi (Hybrid), Ajay Hybrid), ADR (R) 47, ADT (R) 48, HKR 47, Geetanjali, Ketekijoha badshabhog, Naveen, Varshadhan, HPR 2143, HPR 1068, Brigu Dhan Chucheng, VL Dhan 207, VL Dhan 208 and VL Dhan 85

B. Oilseed crops

Sunflower-

LSFH-8, DRSH-1, CO-5, TAS-82, DRSF-113.

Safflower-

AKS-207, PBNS-40, NARI-38, SSF-658.

Castor-

DCH 519(H), GCH-17, Jwala, GC-3.

Groundnut-

GG 8 (J 53), TG 38B (TG 38), GG 16 (JSP 39), Dh 101 (Vasundhara), LGN 1 (Ratneshwar), TLG 45, SG 99, Prasuna (TCGS 341), ICGV 91114, Phule Unap (JL 286), Abhaya (TPT 25), TMV (Gn) 13, Kalahasti (TCGS 320), Narayani, (TCGS 29), AK 265, M 548, AK 303, Girnar 2 (PBS 24030).

Soybean-

JS 95-60, PS 1347, DS 98-14, Pratap Soya 2 (RKS 18, Pratap Soya 1 (RAUS 5), TAMS 98-21, PS-1225), JS 97-52.

Mustard-

LET 17, NRCDR-2, PBR-210, RGN-73, Pusa Mustard-21, (LES 1-27), TPM-1, ELM-079, LET 18, CS 234-4, Navgold (YRN-6), RGN-48, RRN-505 (RN 505), Shatabdi (ACN-9), LET 17*, RB-50, DMH-1, Pusa Vijay (NPJ-93) Karan Rai- Pusa Aditya (NPC-9), Taramira- Narendra Tara (RTM-2002), Torai- VL Toria-3, Gobhi Sarson-GSC-6 (OCN-3), NUDB 26-11*.

Linseeds-

Sharada, (LMS-4-27), HIM ALSI-1, HIM ALSI-2, RLU-6 DEEPIKA, LC-2063.

Sesame

VRI (SV)-2, Hima, TKG-306, Kayamkulam-1, Thilak, Thilathara, Thilarani, Amrit, RT-346, Gujrat Til-3, Jawahar Til PKDS-11 (Venket), SWB-32-10-1 (Savitiri).

Niger-

Jawahar Niger Composite-1, JNS-9 (JNC-9), IGPM-2004-1, (Phule Karala-1), BNS-10 (Pooja-I),KBN-I.

C. Pulse crops

Chickpea-

GNG 1581, BGD 128.

Pigeon pea-

NDA 99-6 (NDA 3).

Mungbean-

HUM 16, MH 2-15 (Sattaya), UPM 02-17 (Pant Mung-6),

Urdbean-

WBU-109, IPU 02-43.

Lentil-

VL507, VL126, 1PL406.

Fieidpea-

IPFD 1-10, HFP 8909 B, VL 42, Pant P-42.

Rajmash-

IPR 98-3-1.

Gaur-

RGC-1038, HG 884.

Horse Gram-

VLG-10, VLG 8, CRIDA 1-18R.

Lathyrus-

Mahateora

D. Commercial crops

Cotton

G.Cot Hy 12, RAJDH. 9, NDLHH - 240, Sri Nandi (NDLA- 2463), CSHH 238, Hybrid Kalian, H 1226, NH 615 Anusaya, AKH - 8828, PKV - Suvarna (AKDH-5), CCH 510-4 (Suraj), CISA 310 (CICR-1), CSHH 243 (Simran), G.Cot 20, NDLHH - 1755 (Sivanandi)

Jute

JRO-204 (Suren), JRO-2003 (Ira), JRC-532, JRC-517 (Sidhartha)

Tobaco

FCV tobacco, Kanthi, Hemdari, Siri, KST 28 (Sahyadri), Chewing tobacco (Tobacco), Abirami, Kaviri, Torsa, MRGTH-1, ABT-10, Vedaganga 1

Sugarcane

Co99004 (Damodar), Co 2001-13 (Sulabh), Co 2001-15 (Mangal) -Midlate, Cos 96268 (Mithas), CoH 119, CoJ 20193, CoS 96275 (Sweety), Co 0118 (Karan-2), Co 0238 (Karan -4), CoLk 94184 (Birendra), Co 0223 (Kosi).

Working of National Rainfed Area Authority

†1493. SHRI SHIVANAND TIWARI:

SHRI RAJ MOHINDER SINGH MAJITHA:

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether it is a fact that the Prime Minister of India had announced about the setting up of a National Rainfed Area Authority on the auspicious occasion of Independence day in the year 2005;
- (b) if so, whether the Authority has made any study relating to the problems of rainfed agriculture land in the country till June 2009; and
- (c) if so, the details of problems which have drawn the attention of the Authority and the measures suggested for their redressal and the details of the suggestions which have been implemented?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS): (a) to (c) Yes, Sir. The Union Government has set up a National Rainfed Area Authority (NRAA) as an advisory, policy making and monitoring body to provide knowledge inputs regarding systematic upgradation and management of country's dryland and rainfed agriculture. The work of NRAA have drawn attention for sustainable and holistic development of farming and livelihood system and to benefit landless and marginal farmers of Rainfed areas of the country. Some of the major studies conducted by the Authority include formulation of the 'Common Guidelines for Watershed Development Projects' and comprehensive report on 'Mitigation Strategy for Bundelkhand Regions of Uttar Pradesh and Madhya Pradesh'. The Common Guidelines for Watershed Development has been

 $[\]dagger$ Original notice of the question was received in Hindi.