

(c) and (d) As reported by the States, the main causes for committing suicide by farmers are crop failure, indebtedness due to loans taken at high rate of interest,, drought, social and economic insecurity, incurable ailments, addiction to alcohol and family disputes.

**Development of transgenic varieties by ICAR**

\*76. SHRI EKANATH K. THAKUR: Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that transgenic varieties of twelve varieties of fruits, vegetables and grains will soon be developed in the country;

(b) if so, whether Government have studied the impact of transgenic crops on the environment, bio-technology and health of the consumers before giving consent for their development; and

(c) the details of precautions taken before they are developed by the Indian Council of Agricultural Research (ICAR) scientists?

THE MINISTER OF AGRICULTURE (SHRI SHARAD PAWAR): (a) Indian Council of Agricultural Research (ICAR) has contemplated development of transgenics in rice, sorghum, maize, chickpea, pigeonpea, soybean, cotton, Indian mustard, banana, papaya, tomato, brinjal, potato and cassava through its institutes and also through a network project.

(b) Biosafety aspects of transgenics are studied before commercial release by the nodal department viz. Department of Bio-technology (DBT).

(c) Precautions are invariably taken before development of transgenic crops with regard to selection of targeted trait, appropriate genetic background, genes and technology, confinement of research material, and testing. For comprehensive testing for environment and biosafety, all transgenic crops/ varieties are provided to the DBT by the ICAR before their commercial release by Ministry of Environment & Forests as per EPA, 1986 regulations and guidelines.

**Sickel-Cell Disease**

\*77. SHRI KALRAJ MISHRA: Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether it is a fact that sickle-cell disease is most prevalent

[9 July, 2004]

RAJYA SABHA

amongst children in Chhattisgarh, Madhya Pradesh and remote tribal areas of Maharashtra and Andhra Pradesh;

(b) if so, whether any nation-wide study has been conducted about the prevalence and main factors contributing to the spread of the disease; and

(c) if so, the estimated number of persons afflicted with the disease, the age-group, races or areas more prone to the disease and other results of such study?

THE MINISTER OF HEALTH AND FAMILY WELFARE (DR. ANBUMANI RAMADOSS): (a) to (c) No nation-wide study has been conducted so far to determine prevalence of sickle cell disease among tribal population in the country. However, Indian Council of Medical Research (ICMR) has an ongoing multicentric study conducted in the states of Maharashtra, Gujarat, Tamil Nadu and Orissa with the aim to assess the nutritional and hematological problems in the primitive tribal population. The study is in progress. ICMR has reported that Sickle Cell disease is prevalent in the States of Chhattisgarh, Madhya Pradesh, remote areas of Maharashtra, Andhra Pradesh, Orissa, Tamil Nadu, Gujarat and North Eastern States. Sickle-cell disease is a hereditary blood disorder due to defective hemoglobin structure and is inherited. When the genes are inherited from both the parents, the children develop the disease. Generally the disease is found in backward communities.

#### **Selling of spurious ghee**

†\*78. SHRIMATI SAVITA SHARDA: Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether Government are aware of the fact that spurious ghee (synthetic) is being sold in the name of pure desi ghee in the country on a large scale which is playing havoc with the health of public

(b) if so, the details thereof; and

(c) the action Government propose to take against the persons playing with the health of crores of people?

THE MINISTER OF HEALTH AND FAMILY WELFARE (DR. ANBUMANI RAMADOSS): (a) to (c) The term spurious is not defined in

---

†Original notice of the question was received in Hindi.