

DEVELOPMENT OF "WONDER FLOUR"

5952. SHRI N. SHIVAPPA :
SHRI P. GANGADEB :

Will the Minister of AGRICULTURE be pleased to state :

(a) whether his attention has been drawn to a press report that a "wonder flour" has been developed by the West German and Peruvian Scientists; and

(b) if so, whether his Ministry has studied its implications ?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI ANNASAHEB P. SHINDE):

(a) The "wonder flour" referred to is the green alga, *Scenedesmus*, which is grown artificially on an industrial scale in West Germany at Dortmund. Because of its richness in protein, essential amino-acids and other minerals and vitamins, it is recommended as a protein fortifier for human food. In Peru, an industrial unit has been set up to produce this alga in collaboration with West Germany. Human food is supplemented with dry algal powder to increase the protein content. Supplementation of 100 gm. of wheat flour with 5 gm. of algal protein results in a marked improvement in the amino-acid composition of wheat protein. Thus it will be seen that this wonder flour holds a potential to satisfy the protein hunger of millions.

Another algal protein *Spirulina*, which grows faster than *Scenedesmus*, and has about 60 per cent protein has attained industrial production in France, Czechoslovakia and Japan.

(b) So far, no work has been done in our country on the large scale cultivation of alga for human food. A French Scientist from the Laborative de le Roquette, Paris, was recently in Gujarat to explore the possibility of setting up of a mass culture unit in the private sector and submitted a report on May 15, 1973. He has set up a Pilot Unit at village level. There is also a proposal by the Council of Scientific

and Industrial Research to set up open-air mass culture units for algal production at Central Food Technology Research Institute, Mysore in collaboration with West German firms. A Scientist from the C.F.T.R.I. was also deputed to West Germany to acquaint himself with the mechanics of production of these algae.

GRANTS TO UNIVERSITIES

5953. SHRI B. K. DASCHOWDHURY : Will the Minister of EDUCATION, SOCIAL WELFARE AND CULTURE be pleased to state :

(a) the amount of grants made to all Universities in the country by the University Grants Commission and other sources, if any, for the last three years, showing grants against each University along with number of students in each University; and

(b) the norms for awarding grants in various Universities ?

THE MINISTER OF EDUCATION, SOCIAL WELFARE AND CULTURE (PROF. S. NURUL HASAN) : (a) and (b). Information is being collected and will be laid on the Table of the Sabha.

ACCIDENTS OF D.T.C. BUSES IN DELHI

5954. SHRI N. K. SANGHI : Will the Minister of SHIPPING AND TRANSPORT be pleased to state :

(a) the total number of accidents of buses belonging to the Delhi Transport Corporation in Delhi during the year 1973;

(b) the loss suffered by the DTC as a result of damage caused to its buses on account of accidents during this period;

(c) the number of persons died and seriously injured due to accidents in 1973;

(d) whether any compensation has been paid to the victims of the bus accidents and if not, reasons therefor; and