

- (3) Journalists and newspapers shall avoid publication of reports and comments which tend to promote tensions likely to lead to civil disorder, mutiny or rebellion. Violence must be condemned unequivocally.
- (4) Journalists and newspapers shall ensure that information disseminated is factual. No fact shall be distorted nor information known to be false or not believed to be true shall be published.
- (5) No sensational or tendentious report of a speculative nature shall be published. Any report or comment found to be inaccurate shall be rectified by prominent publication.
- (6) Confidence shall always be respected. Professional secrecy shall be preserved.
- (7) Journalists shall not exploit their status for non-journalistic purposes or for seeking information for non-journalistic purposes and shall not allow personal interest to influence professional conduct.
- (8) There is nothing so unworthy as the acceptance or demand of a bribe or inducement for the exercise by a journalist of his power to give or deny publicity to news or comment.
- (9) Journalists and newspapers shall not indulge in personal controversies in which no public interest is involved.
- (10) Journalists and newspapers shall not give currency to or publish rumours or gossip or even verifiable news affecting the private life of individuals.
- (11) Newspapers shall refrain from publishing matter (including advertisements) which is obscene or is likely to encourage vice, crime or unlawful activities.
- (12) Journalists and newspapers shall promote and project the national objective of democracy, secularism and socialism.
- (13) Journalists and newspapers shall refrain from giving tendentious treatment to news of disturbances, involving caste, community, class, religion, region or language groupings and shall not publish details of numbers or identity of groups involved in such disturbances except as officially authorised.
- (14) Journalists and newspapers shall not publish information or comment detrimental to the interests of the sovereignty and integrity of India, the security of the State or friendly relations with foreign countries.

11 08½ hrs.

STATEMENTS RE. SHARBATI
SONORA WHEAT

श्री सरबू बाँडे (गाजीपुर) : माननीय अध्यक्षजी, दिनांक 4-5-76 को सदन के माननीय सदस्य श्री द्वारका नाथ तिवारी ने कुछ आरोप घाई० सी० ए० धार० के अध्यक्ष के विरुद्ध लगाया था। उन्होंने अपने धारण में कहा था कि वर्तमान डायरेक्टर जनरल श्री स्वामीनाथन्, ने जानबूझकर सूठा वैज्ञानिक डाटा छापकर यह दावा किया था कि उनके द्वारा विकसित गेहूँ की किस्म शर्बती सोनारा में लाइसीन की मात्रा रूध के बराबर है और श्री तिवारी ने इसके समर्थन में गजेन्द्रगडकर कमेटी को रिपोर्ट का उदाहरण दिया था जो पृष्ठ 93 पर प्रकृत है :

[श्री सरज पांडे]

The claim that Sharbati Sonora has high lysine content is not substantiated

श्रीतिवारी जी ने श्री स्वामीनाथन पर आरोप लाने हुए कहा था कि उन्होंने झूठा डाटा छापा है और कमेटी की रिपोर्ट पृष्ठ 52 का हवाला दिया था

The lysine content of Sharbati Sonora could not be as high as that of milk .

उन्होंने कहा कि स्वामीनाथन ने जान-बूझकर झूठा वैज्ञानिक डाटा छापा है कमेटी ने कहा था

After the claim was made that the lysine content of Sharbati Sonora is higher than that of Sonora 64 various laboratories in the world repeated this analysis The CYMMAT in Mexico which is the international maize and wheat improvement centre grew this wheat in Mexico and found that it did not have higher lysine content as compared to Sonora 64 This fact was brought to notice of the agricultural scientists at the All India Wheat Workshop held at Indore in 1969 It was then resolved in this meeting that the lysine content should be verified in the National Institute of Nutrition Hyderabad and Nutrition Research laboratory Mysore It is very surprising and indeed regrettable that no wheat of this variety was sent during the past 3 yrs to these laboratories for analysis

श्रीतिवारी ने डी० जी के इस कथन को कि शर्बती सोनारा में लाइसीन की मात्रा दूध के बराबर है, गलत सिद्ध किया था। उनके आशय के उत्तर में कृषि राज्य मंत्री श्री शाहनवाज खा ने कहा था कि सरकार द्वारा नियुक्त की गई एजेन्स्यद्वारा कमेटी ने नियुक्तियों

और अन्य शर्कियों के सम्बन्ध में प्रांच को भी और वह भी किर्बे आरोप पर एडुकी भी और जो हवाला उन्होंने दिया, वह भी उद्धृत कर रखा है

"It is obvious that the protein content of wheat, as probably of other cereals, is highly variable, depending upon the soil, climatic conditions and also the fertilizers used The variation is well-reflected in the published results However, in spite of the variation Sharbati Sunehra seems to be clearly superior to Sonora-64 and kalyan Sona in respect of protein content"

श्रीतिवारी जी ने आरोप लगाया था कि शर्बती सोनारा में लाइसीन की मात्रा दूध के बराबर है, यह दावा डी० जी० ने गलत किया है, इसका उत्तर श्री शाहनवाज खा ने नहीं दिया बल्कि उन्होंने यह कहा कि शर्बती सोनारा में प्रोटीन की मात्रा अधिक है। इस प्रकार श्री शाहनवाज खा ने शर्बती सोनारा के सम्बन्ध में तथ्य को छिपाया है और उन्होंने डी० जी० के झूठे दावे के सम्बन्ध में सबूत को चुनराह किया है।

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND IRRIGATION (SHRI SHAHNAWAZ KHAN) Mr Speaker Sir

MR SPEAKER I think, it is a long statement you may lay it on the table of the House, or you can read the relevant paragraphs 10, 11 and 12

SHRI SHAHNAWAZ KHAN This question has been coming up on the floor of the House a number of times I would therefore like to read the statement to put the controversy at rest

MR SPEAKER You may lay it on the table of the House, there is not going to be any debate on it.

SHRI SHAHNAWAZ KHAN: I beg to lay a statement on the Table of the House.

However, I would like to reiterate that the lysine content of Sharbati Sonora is much higher than that of Sonora-64. This thing has been upheld by experiments carried out at the Indian Agricultural Research Institute and Purdue University, USA and, therefore, I again say that whatever I have said is quite correct and I have not misled the House.

SHRI D. N. TIWARY (Gopalganj): The question is whether the lysine content of Sharbati Sonora is equal to milk or not.

MR. SPEAKER: No debate on this. The Minister may invite the Members and have a further discussion with them and settle this question.

Statement

In the limited time available during my intervention in the discussions on the budget demands for the Ministry of Agriculture and Irrigation, I had to cover a wide range of topics with which I am concerned in the Ministry. Hence, I regret that I could not go into greater detail at that time. Also, this particular topic of lysine content of the wheat variety Sharbati Sonora has been discussed on the floor of this House more than once. An exhaustive statement was also placed on the table of the House by the Minister of State for Agriculture on 12th November, 1973. Since, however, I have been charged with misleading the Honourable House, I would like to summarise again the facts which have also been made available on earlier occasions and during the detailed discussions in November, 1973, on the recommendations of the I.C.A.R. Inquiry Committee headed by Dr P. B. Gajendragadkar.

2. In 1962-63, the Indian Agricultural Research Institute (IARI) launched an intensive programme of breeding dwarf wheat varieties capable of converting more efficiently the applied

water and fertilizer into grains. This work was started with dwarf wheat material initially supplied by Dr. N. E. Borlaug of Mexico. The following four approaches were introduced straightaway at IARI and other wheat research centres in the country:—

- (a) Test the best Mexican dwarf wheats under our conditions and select those which give good yields.

This approach led to the identification of the varieties Lerma Rojo 64-A and Sonora-64, which formed the initial material for the High-yielding Varieties Programme in wheat.

- (b) Select from the advanced generation material received from Mexico lines combining good yield potential, resistance to rusts and desirable grain quality.

This approach led to the identification of the varieties PV-18, Kalyan Sona, Sonalika, Chhoti Lerma and Safed Lerma.

- (c) Correct the deficiency in grain colour of Lerma Rojo 64-A and Sonora-64 through mutation breeding.

This was necessary since both these varieties had red colour which, at that time, fetched a much lower price in the market than amber grains. This approach led to the breeding of the varieties Pusa Lerma and Sharbati Sonora.

- (d) Cross the Mexican varieties with our own varieties and select new hybrid strains.

This approach led to a whole series of new varieties at the different centres. This has led so far to the development of about 30 dwarf wheat strains in the different parts of the country.

3. This well-planned and dynamic approach made it possible to identify

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and develop varieties, specially for different growing and consumer preference conditions and had a striking impact on wheat production, as Hon. Members are only too well aware.

4. I give below the reasons recorded by the Central Variety Release Committee of the Government of India when it decided to release the variety Sharbati Sonora for cultivation in 1967 and the factual position relating to them.

- (a) "This new variety Sharbati Sonora-64 has the desirable amber coloured grains, as compared to the red grains of Sonora-64 and would thus be more acceptable to farmers and consumers alike." Till today, no one has disputed the correctness of this statement.
- (b) "The mutant is in no way inferior to Sonora-64 with regard to duration and yielding ability."

The extensive data obtained in All India Coordinated trials over several years and locations and the experience of farmers all confirm this statement of the Central Variety Release Committee. In addition, the experience with respect to the yield potential of Sharbati Sonora was similar in Mexico.

- (c) "Sharbati Sonora-64 was reported to possess higher protein content as compared to the parent variety, Sonora-64."

The Inquiry Committee appointed by the Government of India to review the recruitment and other procedure in the Indian Council of Agricultural Research went into this problem carefully and arrived at the following conclusion:

"It is obvious that the protein content of wheat, as probably of other cereals, is highly variable depending upon the soil-climate conditions and also the fertilizers used. The variation is well reflected in

the published results. However, in spite of the variations, Sharbati Sonora seems to be clearly superior to Sonora-64 and Kalyan Sona in respect of protein content."

Thus, every promise on which the Central Variety Release Committee released Sharbati Sonora for cultivation in all regions where Sonora-64 had been earlier found to be suitable, has proved to be correct.

5. Sir, now I would like to turn to two specific issues—comparison of lysine content of Sonora-64 and Sharbati Sonora and comparison of lysine in Sharbati Sonora and milk. Before doing so, I may explain that there are twenty amino acids in cereal proteins out of which eight are considered essential for the human body. These eight amino acids cannot be produced in the human system by inter-conversion from other amino acids. They are therefore required to be provided through food. Lysine is one of these eight essential amino acids and is generally deficient in all cereals. In 1964, a discovery was made at the Purdue University in the United States of a strain of maize called "Opaque-2" which had a lysine content of over 4 gms per 100 gms of protein. In feeding trials, this strain of maize gave a Protein Efficiency Ratio (PER) similar to that of skim milk. This finding stimulated plant breeders all over the world to add the dimension of quality in their breeding work without sacrificing yield.

6. IARI has been working for over 20 years on the improvement of the Chapati and Bread making qualities and nutritive value of our wheat varieties. The Wheat Quality Laboratory of IARI has been under the charge of Dr. A. Austin, a highly qualified scientist. In 1967, the Quality Laboratory acquired an Amino acid analyser through a grant from the Rockefeller Foundation. The scientists of this Laboratory then began to analyse wheat and other cereals for the content of

essential amino acids, particularly lysine. After the release of the variety *Sharbati Sonora* in 1967, this variety was also screened for lysine content along with *Sonora-64* *Kalyan Sona*, *Lerma Rojo* and other varieties. An early determination revealed a value of 4.61 gms per 100 gms of crude protein. This value however could not be obtained later and in a large number of grain samples analysed after every wheat harvest, the lysine values showed variation, but generally did not exceed 3 gms lysine in 100 gms protein both in *Sonora-64* and *Sharbati Sonora*. Thus the value 4.61 recorded earlier appeared to be due to an analytical error. The probable reason for the error has been explained by the concerned scientist in "Science and Culture", one of our leading scientific

journals. All the lysine values other than this single erroneous one published by IARI are below the value 3.17 recorded in a sample got analysed by the ICAR Inquiry Committee at the Indian Institute of Science, Bangalore. The conclusions of the ICAR Inquiry Committee are the same as those expressed in a comprehensive I.A.R.I. Research Monograph on quality improvement published in 1971.

7. While variability in samples make comparisons difficult, it should be pointed out that when lysine content is expressed in terms of flour (which is the unit of measurement that is most relevant to the consumer), *Sharbati Sonora* seems superior as the following data from two independent studies would indicate.

Data from the Quality Laboratory of I.A.R.I.

Strain	Protein (%)	lysine per 100g flour	lysine per 100 g protein
<i>Sonora-64</i>	13.0	0.286	2.26
<i>Sharbati Sonora</i>	16.2	0.480	2.96

Data from the Quality Laboratory of Purdue University, U.S.A.

i.	gm. lysine per 100 gm. flour	Protein %	Lysine %	Average
1. <i>Sonora-64</i>	0.309	12.25	2.38 2.21 2.83 2.66	2.5
2. <i>Sharbati Sonora</i>	0.434	16.19	2.65 2.74 2.57 2.75	2.7

8. It is a fact that wide variations in protein and lysine content in wheat samples have also been recorded in other countries. It must also be recorded that *Sharbati Sonora* has been found to have protein of very good quality by Prof. B. O Eggum of Denmark, a leading authority in the world

in this area of research. Prof. Eggum recorded a biological value of protein of 60.5 in *Sharbati Sonora* as compared to 52.0 in *Sonora-64*.

9. The statement that samples of grains of *Sharbati Sonora* were not got analysed in other laboratories has been

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contradicted by the National Institute of Nutrition, Hyderabad, as pointed out in the statement laid in the Lok Sabha on 12th November, 1973. Also the I.C.A.R. Inquiry Committee got the protein and lysine content analysed in three different laboratories. Not much further work has been done in recent years, since this variety has been replaced by other improved varieties for late-sown conditions.

10. As regards the comparison between the lysine content of Wheat and that of milk, I must emphasise that no such comparison has been made in any scientific or other articles. Since the I.C.A.R. Inquiry Committee has not given reference to any article concerning this subject, it is presumed that the reference may be to a brief newspaper report of an extempore lecture delivered about 3 years ago by the then Director of I.A.R.I. Since at that time the lysine value, based on the early estimation, was believed to be over 4 gm. per 100 gm protein and since this value was similar to that recorded in "Opague-2" maize which had been reported to have a PER value similar to that of milk protein, the Director taking Sharbati Sonora as an example referred to the possibility of achieving a similar qualitative improvement in Wheat as in maize through genetic engineering. However, as already pointed out, the single high value was not subsequently recorded and no comparison between Wheat and Milk protein was made in any scientific or other article.

11. Sir, I have placed all the relevant information before you. It is my humble request that the work of our scientists should not continue to be criticised on the basis of an acknowledged error in chemical analysis; with reference to one amino acid in one variety overlooking the vast amount of accurate data gathered by them which helped to more than double wheat production in the country within a period of 5 years.

12. In case the Hon. Member needs further information on any

point, I would be happy to furnish the same if he writes to me. I would once again humbly submit that it has never been my intention to mislead the honourable House in any matter in any way. If a honourable Member feels that I had not done full justice to all the points raised by him, I can only say that the constraint of time did not permit me to go into greater detail.

11.12 hrs.

CONSTITUTION (THIRTY-SECOND) AMENDMENT BILL

Extension of time for presentation of report of Joint Committee

SHRI DARBARA SINGH (Hoshiarpur): I beg to move:

"That this House do further extend upto the last day of the next Session, the time for the presentation of the Report of the Joint Committee on the Bill further to amend the Constitution of India."

MR SPEAKER: The question is:

"That this House do further extend upto the last day of the next Session the time for presentation of the Report of the Joint Committee on the Bill further to amend the Constitution of India."

The motion was adopted

11.15 hrs.

GOVERNMENT OF UNION TERRITORIES (Amendment) BILL*

THE MINISTER OF HOME AFFAIRS (SHRI K BRAHMANANDA REDDY): I beg to move for leave to introduce a Bill further to amend the Government of Union Territories Act, 1963.

MR. SPEAKER: The question is:

"That leave be granted to introduce a Bill further to amend the Government of Union Territories Act, 1963."

The motion was adopted

SHRI K. BRAHMANANDA REDDY: I introduce the Bill.

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