

{THE MINISTER OF EDUCATION
AND SCIENTIFIC RESEARCH
(MAULANA ABUL KALAM AZAD) : A statement
giving the required information is attached.

STATEMENT

Mine Ventilation Survey work is divisible into several sections, *e.g.* (a) the determination of the quality of the mine air as shown by its analysis, including its temperature and humidity, (b) measurement of the quantity of mine air circulating in the various sections of the mine, (c) the pressure drop suffered by the air in its passage through the mine galleries, along the face etc., (d) the efficiency of the fans or ventilators, (e) the proper location of auxiliary fans, and (f) ventilation networks.

Regarding (a), numerous analyses of mine air from different collieries have already been done. Some have shown also the presence of carbon monoxide (and of course carbon dioxide), and sometimes nitrous fumes, and occasionally hydrogen. The interpretation of the results requires specialist knowledge; this has been supplied where necessary. Moreover, special techniques have been evolved at the Central Mining Research Station, and are now practised by the staff in the determination of the (small but important) amounts of dangerous gases present. Staff are being trained in the utilisation of these methods.

Spontaneous combustion of coal can often be detected in the early stages if analyses of air (on the return side) are carried out. Further researches into this subject are being conducted at the Central Mining Research Station.

Regarding temperature and humidity, the simplest procedure is to use the whirling hygrometer, and this has been adopted. The hygrometric condition and the temperature of the air are of great hygienic importance: the wet bulb temperature is of particular significance.

Regarding (b), anemometer readings are essential, and these are regularly taken by the management. But it is proposed to have (later) systematic surveys of the various mines undertaken with the co-operation of the Mines Inspectorate. The amount of work involved is considerable.

Regarding (c), the necessary equipment has been ordered, and most of it received: many of the additional staff necessary have been appointed, and their preliminary training will be done in the next month or two. The work requires much care and experience.

The work in the further sections (d), (e) and (f), is being gradually taken up, but such investigations form essentially long term programmes. Indeed, the pressure surveys of mines (sec. C) is in itself by no means a short-term investigation and the analyses and testing of mine air (including contamination from different sources) form also, in effect, a long term programme.

The persons engaged in this work are: —

Chemists and Chemical Engineers	----	3
Technical Assistants	----	3

Samples of mine air are taken frequently, either by the owners or officials of the mines or by the mines inspectors. Close co-operation is maintained with the Chief Inspector of Mines in this work, as his department is particularly concerned.]

रिबोफ्लेविन के लिये चिकनी मिट्टी

१५०१. श्री नवाब सिंह चौहान :
क्या शिक्षा तथा वैज्ञानिक गवेषणा मंत्री यह
बताने की कृपा करेंगे कि देशी चिकनी मिट्टी
से रिबोफ्लेविन (विटामिन बी २) का उत्पादन
कब तक आरम्भ हो जायेगा ?

† [F,nglish translation.

t [ABSORBENT CLAY FOR RIBOFLAVIN

1501. SHRI NAWAB SINGH CHAUHAN: Will the Minister of EDUCATION AND SCIENTIFIC RESEARCH be pleased to state when the production of Riboflavin (Vitamin B2) from the indigenous absorbent clay will start?]

शिक्षा तथा वैज्ञानिक गवेषणा मंत्री (मौलाना अबुल कलाम आज़ाद) : देशी चिकनी मिट्टी केवल रिबोफ्लेविन (विटामिन बी-२) को निकालने और एकत्रित करने के लिये प्रयोग की जाती है। अभी यह नहीं कहा जा सकता कि चिकनी मिट्टी से विटामिन बी-२ कब तक निकालना आरम्भ हो जायेगा।

[THE MINISTER OF EDUCATION AND SCIENTIFIC RESEARCH (MAULANA ABUL KALAM AZAD): Indigenous absorbent clay is used only as a medium of concentration and recovery of Riboflavin (Vitamin B2). It is too early to say when the production of Vitamin B2 can be started with the use of absorbent clay.]

खली से प्रोटीन हाइड्रोलिसेट्स का बनाया जाना

१५०२. श्री नवाब सिंह चौहान : क्या शिक्षा तथा वैज्ञानिक गवेषणा मंत्री यह बताने की कृपा करेंगे कि :

(क) केन्द्रीय औषधि अनुसंधान संस्था द्वारा निकाली गई विधि के अनुसार खली से जिस प्रकार का प्रोटीन हाइड्रोलिसेट्स बनाया जाता है, वह खली में से कितना प्रतिशत तैयार होता है ;

(ख) उसके उत्पादन की आनुमानित लागत क्या है और उसके क्या उपयोग हैं ; और

(ग) उसका उत्पादन बड़े पैमाने पर करने के लिए अब तक क्या प्रयत्न किये गये हैं ?

t [PREPARATION OF PROTEIN HYDROLYSATES FROM OIL-CAKES

1502. SHRI NAWAB SINGH CHAUHAN: Will the Minister of EDUCATION AND SCIENTIFIC RESEARCH be pleased to state:

(a) the percentage of protein hydrolysates in oil-cake as prepared in accordance with the process developed by the Central Drug Research Institute;

(b) what is the estimated cost of its production and what are its uses; and

(c) the efforts made so far to produce it on a large scale?]

शिक्षा तथा वैज्ञानिक गवेषणा मंत्री (मौलाना अबुल कलाम आज़ाद) : (क) अनुसंधानशाला द्वारा निकाली गई विधि के अनुसार तिल और खल में से क्रमशः १८ प्रतिशत तथा १४ प्रतिशत प्रोटीन हाइड्रोलिसेट निकाली जाती है।

(ख) अनुसंधानशाला में किये गये प्रयोग के आधार पर अनुमान लगाया गया है कि इसको निकालने में लगभग ५ रुपये प्रति पाँड खर्च आयेगा। जहाँ पौष्टिक पदार्थ आवश्यक होते हैं अथवा जहाँ प्रोटीन की कमी होती है, इसका प्रयोग किया जाता है।

(ग) इस विधि को व्यापारिक ढंग पर उन्नत करने के लिये परीक्षण किये जा रहे हैं।

[THE MINISTER OF EDUCATION AND SCIENTIFIC RESEARCH (MAULANA ABUL KALAM AZAD): (a) The laboratory yields of protein hydrolysate after hydrolysis from til and mustard oil cake are approximately 18 per cent, and 14 per cent, respectively.

(b) The estimated cost of the final product as judged from laboratory