

R.H. the mortality was hardly  $1\frac{1}{2}$  times that of the control, while at 90 per cent. R.H., this activity rose to three times that of the controls. The work of Germar had already been referred to earlier.

In summarising the above, it may be mentioned that the process of coating grains with dusts is a simple one and consists merely in the mixing of the same with a definite quantity of the fine powder in a suitable equipment. This method can be used both for cereals and pulses. The general opinion in respect of eliminating the dusts, prior to milling, etc., is that it presents no difficulty. Moreover, many of the dusts are innocuous to the alimentary tract. The treated grain may be stored in closed containers so as to avoid exposure to atmosphere and to changes of weather. The coating of grains with dusts to control insects in stored products is, therefore, recommended for the following reasons. In the first place, it protects healthy grains from insect invasion. Secondly, the infested grains containing both the adults and larvæ are rapidly freed of these destructive agencies being desiccated and finally killed by the dusts. It may be mentioned here that the age of the insects is a factor, the young larvæ being more susceptible than the adults. The treatment is effective with regard to the existing population, in retarding oviposition and hence prevents reinfestation. The pupæ emerging from the eggs are rapidly killed by the dusts. Thirdly, the ray materials for these dusts are plentiful and the choice is very wide for selection for cheapness. None of them need be imported from abroad, as is the case with fumigants. The example of Egypt is worth emulating in this respect. The equipment for the production of such fine powders can be rigged up in each province, the same being very simple in character and construction. There is no harm introduced by these dusts, as is probable with fumigants. Finally, the process is economically practicable from the view-point of cost and ease of application.

The quality of the grain so treated is in no way affected. Only the treated grain does not flow as readily as the dry fresh grain, but this is no serious defect, if it is remembered that the highly infested grain does not also flow readily.

#### A PRACTICAL METHOD FOR TREATING GRAINS TO STORE THEM

The following suggestions are thus made for practical adoption. The grain as received, is first sieved in a vibrating screen, whereby the

adult insects are removed. Where the infestation is heavy, such grains may first be passed through a screw conveyor fixed in a jacketed galvanised iron trough, heated in a suitable manner. In this way, the dehydration of the grain is also effected. This is then screened. The clean grain is next mixed with the dust, which may vary from 0.3 to 1 per cent. on the weight of the grain depending upon the efficiency of the dust selected. The mixing may be done in drums, in various places, prior to storage in bins or granaries or other containers which may be capable of being closed fairly airtight. Such containers can also be of plaited bamboo, earthen structure, cement concrete and the like. These containers should be protected from destruction by rats. For this purpose, these are raised more than 3 feet high from the ground, standing on logs which are provided with 4-inch iron-sheets protruding outside around the bottom.

The author had been interested recently in the processing of a cheap clinker and a non-siliceous material and could supply adequate quantities on demand.

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## PITHECANTHROPUS IN PEKING

IN reviewing the work of Weidenreich on *Sinanthropus*, Prof. W. E. Le Gros Clark seeks to establish that there is no justification for a separate genus *Sinanthropus* (*Antiquity*, XIX, 73). In this view, he is supported by Prof. Ruggles Gates who holds that *Sinanthropus pekinensis* should, according to the rules of biological nomenclature be called *Pithecanthropus pekinensis*. *Pithecanthropus* and *Sinanthropus* are related to each other in the

same way as two different races of present mankind. The Java Man possessed essentially human palate and dentition and also quite human limbs and erect gait. From this probably arose the generalised Neanderthaloid type, which diverged in two directions, one of which led to the specialised European Neanderthal type of the later Mousterian date, and the second through Acheulean man to *Homo sapiens*.