

## THE INSULATION OF DRIERS.

In *De Bergcultures*, 2nd Jahrg., No. 38 (March 17, 1928), Dr. J. J. B. Deuss gives details of a trial of fuel consumption in insulated and uninsulated driers. Four Java driers were used, two of them being insulated with Eternit, while the other two were not insulated. The duration of the test was seven hours, the driers being maintained at a temperature of 210°F. The fuel used was cinchona wood, which has a weight of 383 kilos per cubic metre and is a good fuel.

The amount of fresh leaf dealt with was 15794 half kilos. That was withered to 60 per cent., and after withering, rolling, and fermenting, weighed 9510 half kilos. The out-turn of dry tea was 3364 half kilos, the ratio of fresh leaf to made tea being thus 4·69 to 1.

In the two uninsulated driers, 5440 half kilos of fermented leaf were dried to 1886 half kilos of dry tea. The amount of water evaporated was 3554 half kilos and the fuel consumption 1079 kilos (1 kilo = 2·2 lb.). Thus, to evaporate 1 kilo of water, 0·607 kilos of wood were required, or for each half kilo of withered leaf, 0·19 kilo of wood.

In the two insulated driers, which were somewhat smaller than the others, 4070 half kilos of fermented leaf were dried to 1478 half kilos of dry tea. The amount of water evaporated was 2592 half kilos, and the fuel consumption 703 kilos. Thus, to evaporate 1 kilo of water, 0·542 kilos of wood were required, or for each half kilo of withered leaf 0·17 kilos of wood.

As the quantity of water which must be evaporated in a day's work is about 6200 kilos, the saving by insulating the driers is 403 kilo of wood, or about a cubic metre of cinchona wood per day, a saving of about 20 per cent.

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