



Environment Friendly Engineering Solution Company





ISO 9001-2008 | ISO 9001-2015 | EMS 14001 | OHSAS 18001

Coffee analysis Report

After brewing, the coffee powder was stored for 15 days. The moisture content of the stored sample was found to be varying. It was observed that the moisture increased from 55.53- 68.54 % wb (wet basis). After completion of the 6th day, fungus growth was observed. The 10th and 15th days sample was spoiled, and a foul smell was detected. Drying of the stored sample was done after every 5th day of storage. Drying was done using a microwave dryer at a microwave power density of 0.465 W/g. The time required for lowering the sample's moisture content to 18% varied between 43 to 54 minutes, depending on the different initial moisture content of the sample. For the 5th day withdrawn sample, the drying was done until the moisture reached 18% with a drying time of 43 minutes. In case of the 10th and 15th day samples, before drying fungal infected parts were removed, and drying was done. After drying, the sample was stored to check for microbial growth. No fungal growth was observed in the 5th day withdrawn and microwave dried sample after keeping it for ten days (as shown in figure 1). Fungal growth was observed on the microwave dried sample for 10th and 15th days after storing for seven days, and the color of the sample was changed.

The dried 5th day sample was found to be the best sample among the other two. No fungal growth has been seen after storing for more than one month (see Fig. 2). For comparison please refer to Figs. 2 and 3. The dates of photo click are also given.



Images of sample store for different time periods (5, 10 and 15 days)

Fig 1: Microwave Dried Sample: A- sample collected after storage of 5 days; Sample B-sample collected after storage of 10 days; Sample C- sample collected after storage of 15 days.

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(Photo clicked on 14<sup>th</sup> October 2022)
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Fig 2: Microwave Dried Sample: A- sample collected after storage of 5 days; Sample B- sample collected after storage of 10 days; Sample C- sample collected after storage of 15 days.

(Photo clicked on 14th November 2022)



Fig 3: Brewed sample: A- sample collected after storage of 5 days; Sample B- sample collected after storage of 10 days; Sample C- sample collected after storage of 15 days.

(Photo clicked on 31st October 2022)



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