27.3.06

AOAC Official Method 935.29
Loss on Drying (Moisture) in Malt

Gravimetric Method
First Action 1935
Final Action

A. Apparatus

(**a**) *Weighing dish.*—Use glass bottle or Al dish, with tight-fitting cover, ca 40 mm diameter for 5 g test portion, or 55 mm for 10 g test portion.

(**b**) *Oven.*—With automatic control holding temperature within 0.5 C, and large enough to hold all tests on 1 shelf in such manner that no test dish is outside area indicated by test to give comparable results in duplicate tests. Standardize oven as follows: Place weighed duplicate test portions in oven at 103 –104 C and dry 3 h. Weigh, and redry 1 h longer. If loss of moisture is 0.1%, raise temperature 1 C and again test with new duplicate test portions. Take, as standard, lowest temperature <106 C giving moisture content that, after 3 h of drying, is within 0.1% of value attainable at same temperature within 4 h. Keep ventilators of oven open during entire drying period, and do not open door during the 3 h of drying.

B. Preparation of Test Sample

(**a**) *If extract determination is to be made.*—Grind test sample as in 935.30D (*see* 27.3.07), and transfer in one continuous operation. When many test samples are to be analyzed, grind first test sample, remove beaker, and grind second test sample while adjusting weight of first test sample. Remove second test sample, insert third test sample, and repeat operation.

(**b**) *If extract determination is not to be made.*— Have test sample of same fineness as finely ground malt used to determine extract. Weigh ca 5 g whole malt (or 10 g if 55 mm diameter weighing bottle is used) and grind through clean dry mill directly into weighing bottle. Brush all malt from mill into weighing bottle and cover immediately.

C. Determination

Weigh test portion to 1 mg and place in oven previously heated to standard temperature. Remove cover of weighing bottle and heat exactly 3 h at standard temperature. Replace cover, transfer to desiccator, cool to room temperature, and weigh to 1 mg. Report moisture to nearest 0.1%.