

## **SPOT TEST FOR IRON IN FLOUR**

### **AACC Method 40-40 IRON-QUALITATIVE METHOD**

#### **Scope**

Applicable to iron fortified wheat flour and maize meals.

#### **Reagent**

Dissolve 10 g KSCN in 100 ml water. Mix with equal vol 2N HCl just prior to use.  
Hydrogen peroxide 3%.

#### **Procedure**

Make a flat surface of the enriched flour by pressing down with a flour slick, spoon or any suitable smooth surface. Drop a few mls of the thiocyanate reagent onto the surface followed by a few mls of the hydrogen peroxide sufficient to wet an area approx 1 inch in diameter. Let stand at least 10 min. under observation.

If added iron compounds are present they will show up as red spots on the surface. Reduced iron shows up as small dots that take time to appear. Ferrous sulfate shows up as larger spots that appear more quickly. The density of the spots provides an estimate of how much iron was added, which is best done by comparison to flours having known levels of added iron.