

***SUMMARY***

***AND***

***CONCLUSION***

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This research was carried out to study the effect of milling, and varieties of Americans wheats (Hard red flour, soft white flours) and Turkey flour and its effect on manufacturing procedure characteristics and shelf life of an bread and improving sensory evaluation, staling rate by addition of ascorbic acid and emulsifiers such as malt flour and glyceride mono stearate. Evaluating biscuits and cakes chemically, physically and

organolytically. The obtained results would be, summarized as following:

### **1. Properties of starting baking.**

**1.1** American wheat Red flour contained the highest value of protein, fiber, ash and fat. The corresponding figures were: 11.08, 0.91, 0.61 and 3.65 % respectively, while Turkey flour contained the lowest content.

Likewise, American wheat Red flour contained the highest value of minerals content namely Mg, K, Zinc, Mn and iron. While it was lower in Na, Ca, and Cu .

### **2. Role of wheat flour content on physical properties.**

The figures of gluten wet and dry gluten index were higher in American Red than American white flour and Turkey. Also, alkaline water retention capacity values were 211.45, 159.65 and 133.35 for American Red flour, American White flour and Turkey flour respectively.

### **3. Effect of adding 30 ppm ascorbic acid, 0.5 % GMS and 0.5 % Malt flour on the physical properties of pan bread.**

The highest values of physical properties were obtained of ascorbic acid, GMS and malt flour give high volume and specific volume with 100 % American hard wheat (Red) compare to the blend samples.

**4. Effect of adding 30 ppm ascorbic acid, 0.5 % GMS and 0.5 % Malt flour on the sensory characteristics of pan bread.**

From results, ascorbic acid gave the best sensory characteristics of pan bread followed by GMS and Malt flour for American wheat Red 100 %.

**5. Effect of adding 30 ppm ascorbic acid, 0.5 % GMS and 0.5 % Malt flour on staling of pan bread.**

By study staling pan bread using alkaline water retention capacity it is found that:

Decreasing swelling power by increasing levels additions from American wheat (white) after zero, 24 and 48 hr for storage pan bread. By adding 0.5 % GMS and 0.5 % malt flour lead to high decrease in staling rate and improving in a welling power comparing with control.

**5. Effect of adding 0.5 % GMS and 0.5 % Malt flour on staling of cakes.**

By study staling cakes using alkaline water retention capacity it is found that:

Decreasing swelling power by adding 0.5 % GMS and 0.5 % malt flour after 7 days and 14 days for storage cakes. By adding 0.5 % GMS lead to

high decrease in staling rate and improving in swelling power comparing with control.

**7. Effect of adding 0.5 % GMS and 0.5 % malt flour with different levels of blends wheat soft white flour and Turkey wheat flour on sensory characteristics of biscuits produced.**

It was found that adding 0.5 % GMS gave highest values in appearance, texture, and over all score and the acceptance was very good followed by adding 0.5 % Malt flour and control. Biscuits produced from 50 % American wheat white flour + 50 % Turkey wheat flour had highest good scores in all parameters.

**8. Effect of 0.5 % GMS and 0.5 % malt flour with different levels of blends wheat soft white flour and Turkey wheat flour on physical properties of biscuits.**

Wight, volume and specific volume was increased gradually with increasing the levels of Turkey wheat flour Also, adding 0.5 % GMS lead to increase Wight, volume and specific volume than adding 0.5 % malt flour. .

## **9. Chemical composition of tested biscuits.**

It was observed that the content of protein, ether extract, fiber and ash of biscuits made from 100 % wheat white flour gave highest increased and decreased gradually in different levels of Turkey and American wheat white flour.

**So it could be recommended:-**

1- Adding 30 ppm of Ascorbic Acid to (100% American Wheat Red flour) gave very good pan bread.

2- Adding 0.5% GMS or 0.5% Malt flour to (75% American Wheat Red flour + 25% American wheat white flour) to produce pan bread improve the staling and reduce rate of decrease.

3- Adding 0.5% Malt flour to (25% American Wheat white flour + 75% Turkey wheat flour) to gave very good cakes and biscuits.

4- Adding 0.5% GMS to (100% Turkey Wheat flour) to produce cakes improve the staling.

5- Adding 0.5% GMS flour to (50% American Wheat white flour + 50% Turkey wheat flour) to gave very good biscuits.