

## PRACTICE ABSTRACT n° 52

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### Wholesome Energetic Bars: A Nutritious Blend of Wheat Flakes and Dried Fruits

Energy bars made with wheat flakes and dried fruits offer a nutritious and convenient snack, rich in natural sugars, fibers, and essential nutrients. The combination of dried fruits provides quick energy and antioxidants, while wheat flakes contribute complex carbohydrates and dietary fiber for sustained energy release. The used fruits were apricots (Khad Hlima variety), peaches (Boutabgaya variety), and melons (Zehira variety). Wheat flakes were prepared from *Triticum durum* (Maali variety). Fruits and wheat were collected from the Enfidha/Chebika food hub during May and June. The preparation process involved cutting, drying, and grinding the fruits (fig.1). For the wheat flakes, the grains were cleaned, soaked in water for 12 hours, boiled for 1 hour, then ground, flattened, and baked at 150°C for 1 hour (fig.2).

#### Fruits preparation procedure

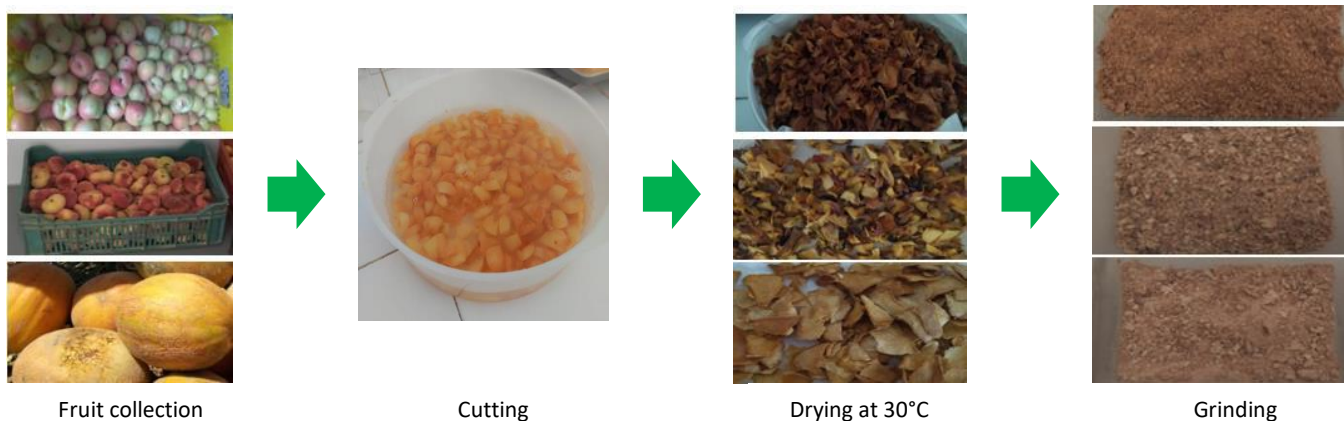


Figure 1: different steps for fruits preparation (apricot, peach and melon)

#### Wheat flakes baking procedure



Figure 2: different steps for wheat flakes preparation

#### Energetic bars preparation

Energetic bars are based on mixture of dried fruits (60%), wheat flakes (22%), and glucose syrup (18%). All the ingredients were mixed, and submitted to forming, pressing and then cooled at 4 °C. Subsequently, the bars were cut into pieces, packed and stored under refrigeration (fig.3)

#### Energetic bars preparation

- The moisture content of the bars falls within an acceptable range for energy which contributes to a desirable texture and enhances shelf stability.
- With a pH of 3.4, the bars are acidic, which is typical for products containing dried fruits that helps inhibit microbial growth, further extending shelf life.
- The bars are rich in phenolic compounds, which are known for their antioxidant properties, underscoring their functional value as a health-promoting snack.
- The sensory analysis showed an overall appreciation score of 6.7 demonstrates that the energetic bars are generally well-liked by consumers. This high score underscores the product's potential as a nutritionally balanced and sensory-pleasing snack.

