

VALUE MEASURING OF TWO GRINDED PAPRIKA VARIETIES

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Abstract

In our experiment we measured the following values: dry matter content, capsaicinoid, and pigment content. The two hybrid paprika varieties were: Hetényi Parázs F1, and Hetényi Triász F1. Open field experiments were carried out at Univer Product Plc. in Szentkirály in 2018

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1. Introduction

Ripe fruits of either vegetable or spice red-bell pepper are a good source of nutritionally important phytochemicals including carotenoids, tocopherols, vitamin C and poly-phenols [1,8]. Adequate daily intake of carotenoids and other antioxidants especially from fruits and vegetables has been recommended to sustain optimal health; moreover, data from epidemiological studies consistently showed correlation between the intake of fruits and vegetables and the incidence of several diseases such as cardiovascular, ophthalmological, gastrointestinal or neurodegenerative disorder and some type of cancer [2,9].

Consumption of products of red pepper has been reported to have interesting biological effects. Cancer chemopreventive activity of carotenoids in the fruits of red paprika *Capsicum annuum* has been confirmed by [3]. The intense and characteristic red color of *Capsicum* fruits is principally due to the pigments of capsanthin and capsorubin [4,7]. In most of European pepper producing countries, particularly Hungary, there was a marked decrease in the arable land production of spice red pepper, during the last 10 years, due to high cost of production, low level of financial support and climate change. To overcome such problems cultivation under plastic houses (idoor) has become an alternative solution. Among many advantages of such technology yield, period of cultivation and crop quality are accentuated [5,6].

2. Method

In our experiment we measured the following values: dry matter content, capsaicinoid, and pigment content. The two hybrid paprika varieties were: Hetényi Parázs F1, and Hetényi Triász F1. This open field experiments were carried out at Univer Product Plc. in Szentkirály in 2018

After the harvest, we dried our samples traditionally for forty days. It was the first stage of the drying method. In the second stage, we dried the fruits for twenty-four hours in 70°C in a special oven (Figure 1).



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Figure 1: Drying the samples

In the next movement, we grinded the dried samples. For this step we use a coffee grinder (Figure 2).



Figure 2: Grinded sample

In the laboratory our coworkers used our samples to make a capsaicinoide, dry matter and pigment content examinations.

3. Results

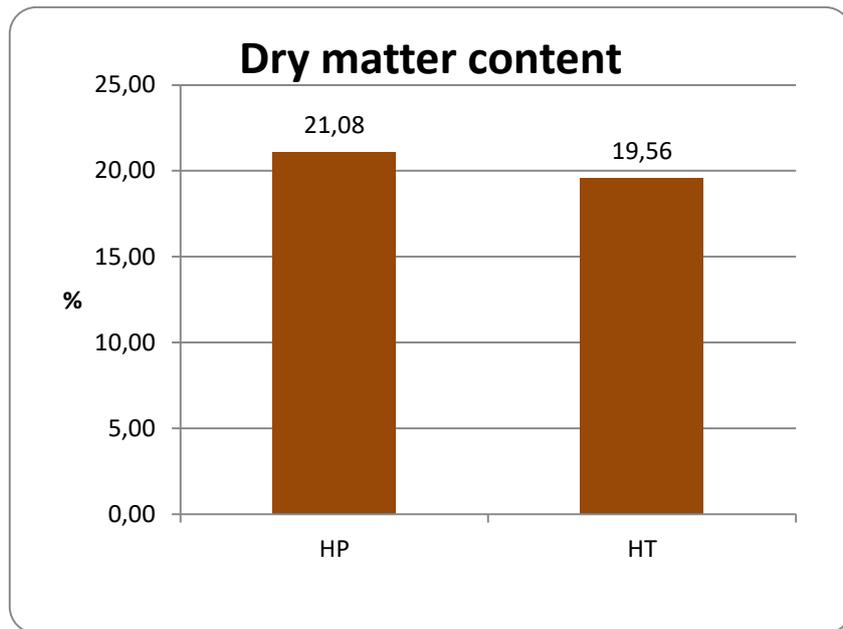


Figure 3: Dry matter content

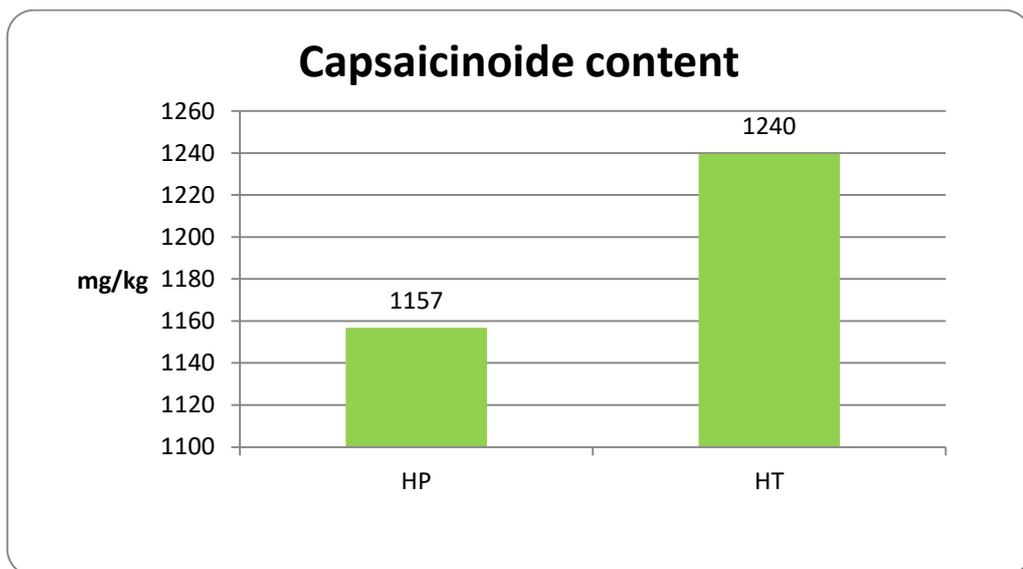


Figure 4. Capsaicinoide content

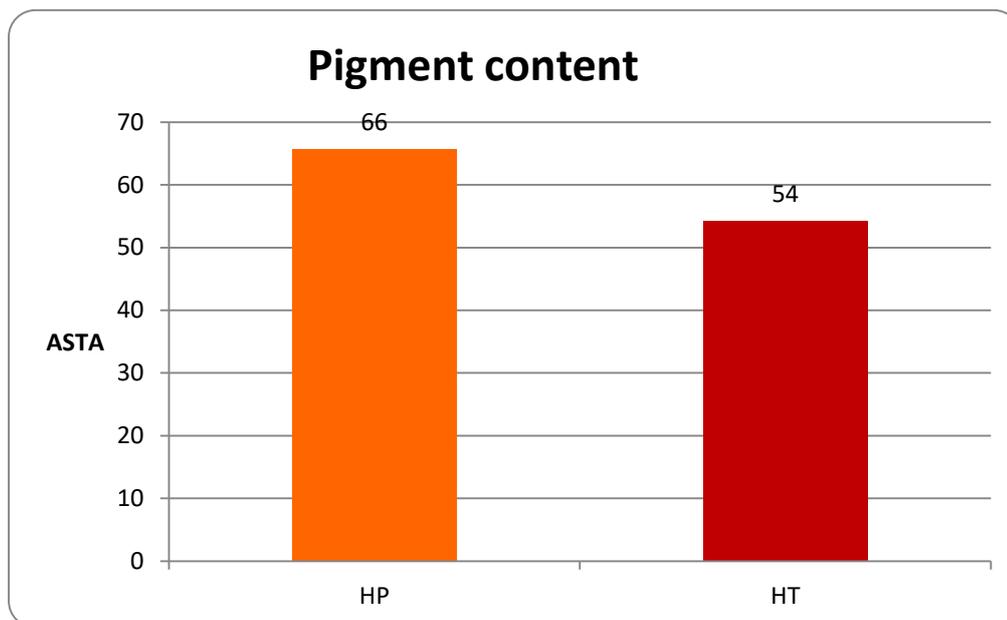


Figure 5: Pigment content

4. Discussion

After the measurements, we found minimal differences between the dry matter content (Figure 3). It means that the Hetényi Parázs (21, 08%), and the Triász (19,56%) is also a good industrial raw material.

The capsaicinoide content (Figure 4.) in the Hetényi Triász (1240mg/kg) was bigger than in the Hetényi Parázs (1157mg/kg). Although both variety required for the strong category.

For the pigment content (Figure 5.), ASTA values were measured. The Hetényi Triász (54) and the Hetényi Parázs (66) is also belongs to the sweet-noble category.

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