

CITRUS LEMON L. DETERMINATION OF QUALITY AND QUANTITY INDICATORS IN FRUITS

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Annotation. This article lists lemon (Citrus lemon L.) determination of the quality and quantity indicators in the fruit set a goal for us to carry out the determination through experience.

Keywords. Citrus lemon L., extractive substances, state Pharmacopoeia, toxic element, pesticide, radionuclide.

Introduction. Citrus lemon L. the determination of the amount of extractive substances in the composition of the fruit was carried out based on the requirements of the state Pharmacopoeia (SP).

The appearance of the raw material mixture depending on which organ the plant is, the Berry should have a dark or solid mass, the taste - sweet, pleasant fresh barra should have a fruity taste, the smell according to the type of fruit, have a characteristic sharp and pleasant fresh aroma, the color-fruits should have a color corresponding to the component composition, the amount of toxic elements, pesticides and radionuclides citrus lemon L. must be (145) [145; 89-b].

Experience 1. Determination of humidity. Determination of the humidity indicator of medicinal plants XI was carried out on the basis of the requirements of SP. The experiment was repeated at least 5 times. To do this, it was pulled out of the product with a clearly pulled weight of 20 g and dried on the drying equipment Memmert GmbH+Co KG (made in Germany) until it came to a constant weight. Then the two Buks were put in equal amounts and heated until 100-150 oC reached a constant weight. Heated bulls are cooled in the exicator for 30 minutes before weighing, and the results obtained experimentally were determined by the formula presented on the basis of the requirements of GOST 22839-88:

$$x = \frac{(a - b) * 100}{a}$$

Where, x is the moisture % content; a is the pre - drying mass of the product; b is the post - drying mass of the product, g.

Experience 2. Determination of the amount of ash. The amount of ash in plant parts was determined according to XI SP. To do this, a product weighing 9 g, which is clearly weighed on the analytical scales Nabertherm GmbH Bahnhofstr. 20,28865 Lilienthal, in a mufel oven made in Gremania, is heated to a high temperature, placed in a porcelain cup and brought to a constant mass until it slowly burns over a fire. The resulting product is heated in a muffle oven at 600 0C until it comes to a constant mass.

$$X = \frac{m_1 \cdot 100}{m_2}$$

Here, M1 is the mass of the ash, g; m2 is the mass of the sample, g.

Experience 3. Determination of the amount of extract substances. When determining the amount of extractive substances in the composition of medicinal plants, it was met based on the requirements of SP.

To do this, 1 g of crushed (the diameter of the hole is sieved in a 1 mm sieve), which was clearly pulled out, the product was placed in a conical flask, poured 50 ml of water, then covered the flask with a probe and weighed at an accuracy of 0.0001 g on the scales. The mixture in the flask was put in a quiet place for an hour. The flask was then combined with a glass flute – air cooler in an upright position and slowly boiled for two hours. The flask was cooled and closed with its own probe, pulled again on the scales. When the weight was reduced from the amount previously weighed, the flask was put back into the solvent and delivered to the previous weight. Because, in this case, when the mixture boils, the solvent can partially evaporate and decrease. After the liquid in the flask was thoroughly mixed, the dry filter was filtered through paper into another clean flask. 25 ml of the filtered liquid is measured with a pipette, then, after drying and bringing to a constant weight, the porcelain is placed in a container (Cup) and evaporated in a water bath and dried for 3 hours at a temperature of 100-150 0C. Then the container was cooled in the Exciter for 30 minutes, weighed on the analytical scales. When the kosacha weight was removed from the total weight, it was determined that the extractive substances in the 25 ml filter were compliant with DF requirements (GOST 24027.0-80) using the downstream formula.

$$X = \frac{(a - b) * 200}{c}$$

Here, in % amounts of X - extract substances
dried kosacha mass with a-extract substances
b-Tube weight

c-the mass of the sample analyzed

The results obtained are presented and analyzed in Chapter II Table 2.1.

Results discussion. Citrus lemon L. for color, taste, moisture and ash content of the components and pH indicators were given through Table 1.

Table 1.

Citrus lemon L. quality and quantity indicators for

Indicators	Citrus limon L.		
	Peel	Seed	Pulp
Color	light-yellow	yellow-brown	light-yellow
Sour	Taste	Sour	Sour
Humidity, %	7,6	5,8	8,7
Ash content, %	2.98	2,8	1,9
pH	4,5	5,5	3,5

Conclusion. In the studies carried out by us, the amount of ash is the most abundant Citrus lemon L. it accounts for 2.98% in the peel and 2.8% in the seed and 1.9% in the pulp of MEA in small quantities. The fact that it contains a large amount of ash means that it contains a large amount of macro-and microelements. While humidity does not exceed 11% according to the requirements of GOST Citrus lemon L. dan indicates that long-term storage is possible if food is prepared without being added. the pH indicator is 4.5 on the peel, 5.5 on the seed and 3.5 on the fruit pulp. In this Citrus lemon L. showed that moisture and ash levels in the structure were SP compliant.

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