

## NEW VARIETIES TOMATO OBTAINED AND CULTIVATED AT INCD BH ȘTEFĂNEȘTI

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### Abstract

Lately consumer demands quality vegetables, especially tomatoes experienced a pronounced orientation towards sensory seeking and appreciating as much flavor and aroma specific red even at the expense of the commercial aspect of the fruit perfectly. Varieties presented in this paper were obtained at INCD BH Ștefănești Arges, after several research papers in many years and was approved in 2012 The paper presents two varieties of tomatoes growing determined that Arges 11 and Arges 20 varieties tomato INCD BH approved to have been a resurgence of vegetable research in the area, which were discontinued for more than 20

*Keywords:* tomato, variety new, type of growth, maturity for harvesting

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### 1. INTRODUCTION

To produce crops of table grapes is a profitable activity. Using varieties valuable land well located. Climate change rolls over agriculture. Vegetables and cereals suffer from drought and large temperature differences. Because of this, researchers are trying to obtain new varieties of tomatoes, peppers and cucumbers, to resist our sunburnt fields. Meanwhile, Israeli farmers received seeds from tomatoes that have adapted to our climate difficult, but the taste of tomatoes is not the same as many years ago. The tomatoes are consumed fruit physiological maturity, and those that do not reach this stage (green tomato) for the preparation of pickles. Tomato particular importance is given to the food that they consume a wide range as follows: Fresh lettuce simple or mixed with other vegetable sauce, pot filled with various compositions red, etc. Industrial prepared in the form of paste, broth, canned, regular or spicy juices etc. Provisions of the World Food and Agriculture Organization (FAO) recommends consumption of vegetables in varying amounts depending on the age of consumers: up to 12 - 100 g / day over 12 years - 350 g / day, annual consumption reaching 120 kg vegetables.

## 2. MATERIAL AND METHODS

Varieties were obtained by hybridization between Rila variety, very productive, tolerant to pathogens but late, with one showing earliness and growth biotypes determined. The image below shows inflorescences hybridized hand bags (figure 1).



Figure 1 - Hybridizing new varieties obtained manually

## 3. RESULTS AND DISCUSSION

Brief description of the variety:

*Tomato variety Arges 11*

*Morphological characters:* anthocyanin coloration of hypocotyl seedlings stage is present and is the average intensity. Type of plant growth is determined. Leaf is medium length, narrow to medium width is and division language is pinnate. Pubescens style and color of the flower is absent flower is yellow. The abscissa of the stem is absent. The fruit is very large and the height / diameter is medium. Fruit shape in longitudinal section is rectangular. Costar is the stem area average.

Pericarp is thick and lodges seminal number of is equal proportion of three and four. Fruit no green cap and green color intensity before maturity, the yellow light. Fruit color at harvest maturity is live and red is red seminal cavity environment. The fruit is firm (table 1).

*Physiological traits:* the beginning of flowering early and late maturity at harvest is very late.

*Destination:* fruit intended for fresh consumption (figure 2).



Figure 2 - Variety Arges 11 aspect fruits and fruit section

*Table 1. Variety denomination – Argeş 11*

No. crt.	No. CPVO	Characteristics	States of Expression	Note
1.	2	Plant: growth type	determinate	1
2.	10	Leaf: division of blade	pinnate	1
3.	23	Fruit: size	very large	9
4.	25	Fruit: shape in longitudinal section	rectangular	4
5.	34	Fruit: number of locules	three or four	3
6.	35	Fruit: green shoulder (before maturity)	absent	1
7.	39	Fruit: colour at maturity	red	5
8.	45	Resistance to <i>Melodogyne incognita</i>	resistant	3
9.	46	Resistance to <i>Verticillium</i> sp. (Va and Vd) Race 0	present	9
10.	47	Resistance to <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i>	present	9

*Tomato variety Argeş 20*

*Morphological characters:* anthocyanin coloration of hypocotyl seedlings stage is present and is the average intensity. Type of plant growth is determined. The leaf is long and wide. Division leaf lamina is bipinnated. Pubescens style and color of the flower is absent flower is yellow. The abscissa of the stem is absent. The fruit is very large and the height / diameter is medium. Fruit shape in longitudinal section is rectangular. Costar the stem area is medium to strong.

Pericarp is thick and the number of lodges seminal is equal proportion of three and four. Fruit no green cap and green color intensity is opened (table 2).

Fruit color at harvest maturity is red living and seminal cavity is moderately red. The fruit is firm.

*Physiological traits:* the beginning of flowering and maturity early harvest is late.

*Destination:* fruit intended for fresh consumption (figure 3).

*Figure 3 - Variety Argeş 20 aspect fruits and fruit section*

*Table 2. Variety denomination – Argeş 20*

No. crt.	No. CPVO	Characteristics	States of Expression	Note
1.	2	Plant: growth type	determinate	1
2.	10	Leaf: division of blade	bipinnate	1
3.	23	Fruit: size	very large	9
4.	25	Fruit: shape in longitudinal section	rectangular	4
5.	34	Fruit: number of locules	three or four	3
6.	35	Fruit: green shoulder (before maturity)	absent	1
7.	39	Fruit: colour at maturity	red	5
8.	45	Resistance to <i>Melodogyne incognita</i>	resistant	3
9.	46	Resistance to <i>Verticillium</i> sp. (Va and Vd) Race 0	-	-
10.	47	Resistance to <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i>	-	-

*Figure 4 - Culture tomato, new varieties**Figure 5 - Variety Argeş 11**Figure 6 - Variety Argeş 20*

Biometric measurements consisted of determining the average height of plant, number of inflorescences per plant, average number of fruits per inflorescence, average size and average weight of fruit.

Variety cultural Argeş 11 has the following characteristics (figure 5):

- growth driven; flowering rich with deep red colours fruit 8-10; average fruit weight is 176.6 grams; average diameter, measured at the middle of the fruit, 70.9 mm; height (length) of 76.3 mm average fruit.

Variety cultural Arges 20 has the following characteristics (figure 6):

- g driven; inflorescence short, normal large fruited, with 4-5 deep red colours fruit; average fruit weight is 242.6 grams; average diameter, measured at the middle of the fruit, 70.5 mm; height (length) of 75.9 mm average fruit.

#### 4. CONCLUSIONS

New varieties of tomatoes obtained from Ștefănești are recommended for introduction in culture in Romania, Romanian origin have genetic value.

Varieties resistant tomato fruit during transport and storage.

Fruits sweet and intense aroma specific varieties of tomatoes in old Romanian; Varieties for maturing characteristics - picked ripe fruit reached commercial maturity (dark red and sweet) no defects.

#### 5. ACKNOWLEDGEMENTS

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