

PRODUCTION AND QUALITY CHARACTERISTICS OF SOME NEWLY

YAKA TOBACCO VARIETIES



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ABSTRACT

Comparative trial was carried out in 2011, in the field of Tobacco Institute-Prilep with some Yaka tobacco varieties in order to study their morphological, productional and quality characteristics. The trial included 5 new lines of the type Yaka obtained by generative hybridization (Yk 65-82/1, Yk I.301-123/82, Yk I.11-46/65, Yk I.14-63/82, Yk I.7-65/31) and the variety Yk 125/3 as a standard. Of the test product and kvaltetni properties (d / blade , kg / ha % of robustly classes , economic impact) , we came to the conclusion that the newly yaka tobacco varieties have greater yield per plant and per hectare and higher economic output - gross cash income per hectare to 20- 80 % compared with the control variety JK 125/3 . The share of Yaka tobacco in the total tobacco production of R. Macedonia is about 5%. We hope that the newly created Yaka lines and varieties will find their place in the mass tobacco production of the Republic of Macedonia.

Keywords: tobacco, yaka, lines quality characteristics, economic output

INTRODUCTION

Good quality and higher yields of tobacco will be obtained by application of appropriate agro-technical measures, but the production of raw material primarily depends on the type and variety of tobacco and its genetic characteristics. The fact that the production of Yaka tobacco accounts for 18%, i.e. 5% of the total tobacco production in R. Macedonia explains the growing interest of buyers for new varieties of this type that will replace the standard varieties.

By the analysis of productional and quality characteristics of some new varieties and lines of Yaka tobacco, the aim of this paper was to show that selection of new varieties of oriental tobacco must be continuous process which will improve their economic characteristics and will secure their place in the mass production of tobacco in R. Macedonia.

MATERIAL AND METHODS

The trial was set up in the field of Scientific Tobacco Institute - Prilep, following standard methodology - randomized block design with 4 replications. The following Yaka tobaccos were included in the trial: Yv. 125/3 as a standard variety and newly created lines Yk. 65-82/1, Yk. I. 301-123/82, Yk.I.11-46/65, Yk.I.14-63/82, Yk I.7-65/31. The analysis was made on productional characteristics (yield per stalk/hectare) and on some qualitative and economic characteristics (percentage of high classes, purchase price and economic effect).

RESULTS AND DISCUSSION

Table 1. Dry mass yield

Varieties / Lines	g/plant		kg/ha	
	g/plant	%	kg/ha	%
Yaka Yv 125/3 Ø	6,18	100,00	1286	100,00
Yaka 65-82/1	12,1	139,32	3531	274,57
Yk.I. 301-123/82	9,58	155,02	1993	154,97
Yk.I. 11-46/65	6,74	109,06	1402	109,02
Yk.I. 14-63/82	7,46	120,71	1551	120,61
Yk.I. 7-65/31	7,30	118,12	1518	118,04

Table 2. Quality characteristics

Varieties / Lines	denars/kg		I and II class %	
	denars/kg	%	%	%
Yaka Yv 125/3 Ø	135,49	100,00	29,48	100,00
Yaka 65-82/1	127,03	95,15	28,88	97,96
Yk.I. 301-123/82	128,26	96,08	2,89	9,80
Yk.I. 11-46/65	120,68	90,40	2,27	7,70
Yk.I. 14-63/82	123,11	92,22	6,45	21,87
Yk.I. 7-65/31	131,97	98,86	25,55	86,67

Table 3. Economic effect, denars/ha

Varieties / Lines	denars/ha	
	denars/ha	%
Yaka Yv 125/3 Ø	171668,1	100,00
Yaka 65-82/1	448507,6	261,26
Yk.I. 301-123/82	255622,2	148,90
Yk.I. 11-46/65	169193,4	98,55
Yk.I. 14-63/82	190943,6	111,23
Yk.I. 7-65/31	200330,5	116,70



Photo 1. Jv 125/3 Ø



Photo 2. Jk. 65-82/1

CONCLUSIONS

The results of investigations lead to a conclusion that the newly created varieties and lines of Yaka tobacco are characterized by:

- Higher yield per plant and per hectare (9% - 80%) compared to the standard variety Yk 125/3
- Lower average price (denars/kg) and percentage of high classes
- Higher economic effect (11.23% -161.23%) compared to the check variety.