

RESEARCH ON THE INFLUENCE OF PINCHING AND THINNING OUT ON THE PRODUCTION OF VIRGINIA TOBACCO, ON THE SOIL AND CLIME CONDITIONS OF MIRSANI - DOLJ

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Abstract

Through the work of flesh and thinning out try to give an answer to the question of how much increased production of leaves, after carrying out these works in the local environment.

Results obtained show that production to the method recommended to make the elimination inflorescences as early as possible: a_1 (the emergence of floral button), other variants, respectively a_2 (pinching at the beginning) and a_3 (pinching in full bloom), is different and somewhat illogical hard to explain.

Thus, for a_2 gives a less production of about 130 kg/ha, compared to variant witness, that deficit should be delayed on account of performing the work of pinching to start flowering, and a_3 , when the delay was performing work and higher and should lead to a shortage of production as of late, has not won a minus but a plus yield producing 271 kg/ ha.

INTRODUCTION

Cultivation of tobacco type on the sands Virginia proved to be very profitable, with a large suitability under irrigation, which requires deeper research on which to determine the influence of works of pinching and baby food on the conditions soil and clime of sandy land left Jiu from Mirsani – Dolj.

MATERIAL AND METHOD

On sandy soil typical of Mirsani – Dolj has placed an experience with 3 factors as subdivided parcels, with four repetitions.

A factor (when performing pinching) with 2 sub factors: a_1 =pinching from the appearance floral button (Mt.), a_2 =pinching beginning thriving, a_3 =pinching from inflorescence maximum.

Factor B (depth of pinching) with 2 sub factors: b_1 =inflorescence plus 2 leaves, and b_2 =inflorescence plus 4 leaves (Mt.).

Factor C (method of thinning out) with 2 sub factors: c_1 =thinning out manually (Mt.) and c_2 =chemical thinning out.

RESULTS AND DISCUSSION

Results of production (table 1) show that the elimination inflorescence as early as possible (the emergence floral button - a_1) in comparison with other options, namely: a_2 (pinching at the beginning blossom) and a_3 (pinching in full bloom), behave different and difficult to explain.

Table 1

Production of dried leaves according to the factor A (when performing pinching) in 2006

A factor (when performing pinching)	Production			Signification
	kg/ha	%	d	
a_1 -pinching apparition floral button	2,009	100.0	Mt.	
a_2 -sausage at the beginning blossom	1,879	93.5	-130	
a_3 -pinching flourishing maximum	2,280	113.5	271	x

DL 5% 190 kg/ha
 DL 1% 288 kg/ha
 DL 0.1% 463 kg/ha

Thus while a_2 give a less production of about 130 kg/ha, compared to variant witness, that deficit should be delayed on account of performing the work of pinching to start flowering, to a_3 , when the delay was performing work and large and should lead to a shortage of production as of late, has not won a minus, but even more production of 271 kg/ha.

We consider that a reason for getting more production of 271 kg/ha has uneven because in the vast land in terms of fertility and other characteristics of the soil.

The second factor taken in this study in depth experience and that of pinching (factor B) shows the production obtained (table 2), as land poor in nutrients above, pinching must be more profound, eliminating a larger number of top leaf with inflorescent.

Table 2

Dry leaves yield in function of the B factor (pinching depth) in 2006

B factor (pinching depth)	Production			Signification
	kg/ha	%	d	
b_1 - inflorescence plus 2 leaves	1,979	92.8	- 154	0
b_2 - inflorescence plus 4 leaves	2,133	100.0	Mt.	

DL 5% 150 kg/ha
 DL 1% 216 kg/ha
 DL 0.1% 318 kg/ha

The third factor (C) taken in the study is about how to eliminate thinning out (manual or chemical-c₁ with Royal 4% - c₂).

Results of production (table 3) shows that between the two methods of thinning out there are no differences, production were virtually equal, 2,046 – 2,066 kg/ha.

Table 3

Production of dried leaves according to the factor C (method of thinning out) in 2006

C factor (method of thinning out)	Production			Signification
	kg/ha	%	d	
b ₁ - thinning out manually	2,046	100.0	Mt.	
b ₂ - chemical thinning out	2,066	101.0	20	

DL 5%	123 kg/ha
DL 1%	186 kg/ha
DL 0.1%	235 kg/ha

But there is a difference regarding the amount of green mass eliminated by pinching (table 4) and the number of manual work to be done to eliminate thinning out.

Thinning out to such manual was required in three passages within a month (9 - July - Aug 12), and the amount of total mass of green has been eliminated big enough (3,189 – 3,486) kg/ha, compared with chemical variants thinning out, where it was needed only one paper (Aug. 12), and the amount of green mass eliminated was reduced to about one third (1,204 – 1,250 kg/ha).

CONCLUSIONS

1. Virginia-type tobacco planted on the sand in terms of irrigation and fertilization balanced not differentiate the production, following the works of pinching and thinning out.
2. Getting an extra production of 271 kg/ha through the work of pinching at their peak are flourishing because of uneven in the vast land in terms of fertility and other characteristics of the soil.
3. The quality of tobacco is not sensitively influenced by pinching and thinning out.
4. On sandy soil poor in nutrients pinching must be more profound, because by removing a larger number of top leaf with inflorescent, the lower leaf remained benefit from greater resources develop better.
5. Thinning out between manual and chemical thinning out there are no differences of harvest production were virtually equal.

Table 4

Amount of green mass eliminated by the works of pinching and thinning out in 2006

Factors investigation		Method of thinning out						
A (phase pinching)	B (depth of pinching)	C ₁ (thinning out manually – Mt.2)			kg/ha	C ₂ (chemical thinning out)		kg/ha
		9.07 I	20.07 II	12.08 III		12.08	% Mt.2	
a ₁ - apart from floral button (Mt.1)	b ₁ inflorescent + 2 leaves	137	130	2,685	2,952	988	33.4	123
	b ₂ inflorescent + 4 leaves	145	132	3,148	3,425	1,420	41.4	143
Media a ₁		141	131	2,917	3,189	1,204	37.4	133
a ₂ at the beginning of flowering	b ₁ inflorescent + 2 leaves	11	128	2,716	2,955	576	19.5	260
	b ₂ inflorescent + 4 leaves	145	130	3,220	3,495	659	26.4	270
Media a ₂		128	129	2,968	3,225	617	23.0	265
a ₃ in full flourish	b ₁ inflorescent +2 leaves	169	135	2,376	2,680	1,219	45.5	469
	b ₂ inflorescent + 4 leaves	219	126	3,948	4,293	1,281	38.9	543
Media a ₃		194	130	3,162	3,486	1,250	42.2	506

REFERENCES

1. Aniția N., P. Marinescu, 1983. *Tehnologia tutunului*. Ed. Tehnică, București.
2. Baniță P. și colab., 1981. *Cultura plantelor pe nisipuri*. Ed. Scrisul Românesc, Craiova.
3. Chichea I., I. Matei, E. Ioan, L. Pop, 1981. *Cercetări privind comportarea unor soiuri de tutun de tip Virginia, pe nisipurile irigate din stânga Jiului*. Analele Universității din Craiova.
4. Gheonea C., 1977. *Contribuții la stabilirea unor elemente ale tehnologiei tutunului Virginia în regim irigat și neirigat, pe nisipurile modelate din sudul Olteniei*. Teză de doctorat, Institutul Agronomic N. Bălcescu, București.
5. Pop L., I. Matei, I. Chichea, 1977. *Agrofitotehnica pe terenurile nisipoase*. Ed. Ceres, București.
6. Ștefan N., M. Irimie, 1967. *Cultura tutunului*. Ed. Agro-Silvică, București.
7. ***1980. *Tehnologia tutunului*. S.C.C.C.I.T. București.