RESEARCHES CONCERNING THE KEEPING KIND UNTIL SOW OF GROUNDNUT SEED

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Key words: groundnut, sand, yield

ABSTRACT

The quality of seed used for sowing the surfaces for yield obtaining determines greatly the increase of agricultural crop production. Using for sow superior quality seed, with high biological and physical purity, good indices for germination, one thousand seed mass, hectolitric mass and vigor, contributes to optimum conditions expression of the crop to a total productive and qualitative potential of the cultivated varieties.

The obtained experimental results show that groundnuts seed can be taken out of pods long before sowing if they are properly dried, without having a bad influence on germination and harvest.

INTRODUCTION

Groundnut plants needs for growth and fruiting heat and light, but does not require fertile soils, good results being obtained on soils with low humus content and in our country these conditions are found in the south of Oltenia, on sandy soils.

To achieve increased yield, groundnuts require large amounts of water because high temperatures on sandy soils makes evapotranspiration to be very intense especially during flowering, fruiting, which corresponds to the warmest months of the year.

Irrigation on sandy soils from Oltenia makes groundnuts favorable to meet requirements from heat, light, water, and this culture to be extended.

From the literature, indicates that good results are obtained only when the beans are removed from the pod with only 1 - 2 days before planting. If the beans are removed from the pod with long before they lose their germination (Bilteanu, Gh, Birnaure, V., 1989).

It were conducted research in 2011 and 2012 as concern the date or time that the seed from the pod can be taken out (shelling seed) and the influence on germination and production, the storage of the pods being done in natural conditions in the bridge the Faculty of Agriculture and Horticulture.

MATERIALS AND METHODS

The research was conducted at Tamburesti R.S. in the period 2011 - 2012 on sandy soil under irrigation conditions.

Sandy soil that has experienced low productivity is due to mechanical and chemical composition, with sand content of 85 - 95% and 0.4% humus.

Experience was set up after storey blocks method in four and five variants:

V1 = pods opened on January 15;

V2 = pods opened on 15 February;

V3 = pods opened on 5 March;

V4 = pods opened on 5 April

V5 = pods apart from sowing (control).

Groundnut pods were kept from harvesting to shelling in the bridge Faculty of Agriculture and Horticulture, in conditions very similar to those in seed storage places.

Groundnuts were grown in the first decade of May in both years of experimentation. Before sowing when its seedbed preparation took place fertilization with N50P50 was applied. The sow was performed manually, ensuring a density of 100.000 seeds/ha.

During the vegetation period were applied two mechanical and hand cultivation, billoning and irrigation was made (6 norms of irrigation of 300 cubic meters of water per hectare). Harvest was conducted in early October.

RESULTS AND DISCUTIONS

The obtained results in the two years of experimentation are presented in Figure 1 and Tables 1. Figure 1 presents the results on the production of groundnuts, hence that was higher in 2011 and lower in 2012 due to climatic conditions and particularly since the experimental temperatures.

In 2011, taking out of the seed from pods with many days before planting leaded to the obtaining of high yields (V2 - V4), comparative with the removing of the seed with only 1 - 2 days before planting (V5), the yield being ranged between 2667 - 3289 Kg/ha compared to 2678 Kg/ha. Sometimes when seeds were removed from pods on 15 January (V1) it was obtained a lower yield, of 2247 Kg/ha.

In the second year, 2012, the results differed from 2011, as the groundnut yield realized in the variants that made the seed out of the pods long before planting (V1 - V4) were close to those made in the variant that the removing seed from pods was done with 1 - 2 days before planting, namely from 2525 to 2800 Kg/ha compared to 2597 Kg/ha.

The average results for the two years of experimentation shows that groundnut yield was 2637 Kg/ha when sowing was carried out seed (V5, control) and when removing seed was made long before planting, productions were high ranging between 2685 - 2892 Kg/ha, registering increases production of 48 - 255 Kg/ha.

So, we can say that the average results obtained in the two years of experimentation refute those presented in the literature, as well as removing the seeds from pods to be made only before sowing, 1- 2 days.

Regarding the influence of grain removal on some physical pods of beans, some results are presented in Table 1. The table shows that the variants that were removed from the pods seed long before planting (V1 - V4) the values are higher than the pod out of the seed with only 1 - 2 days before planting.

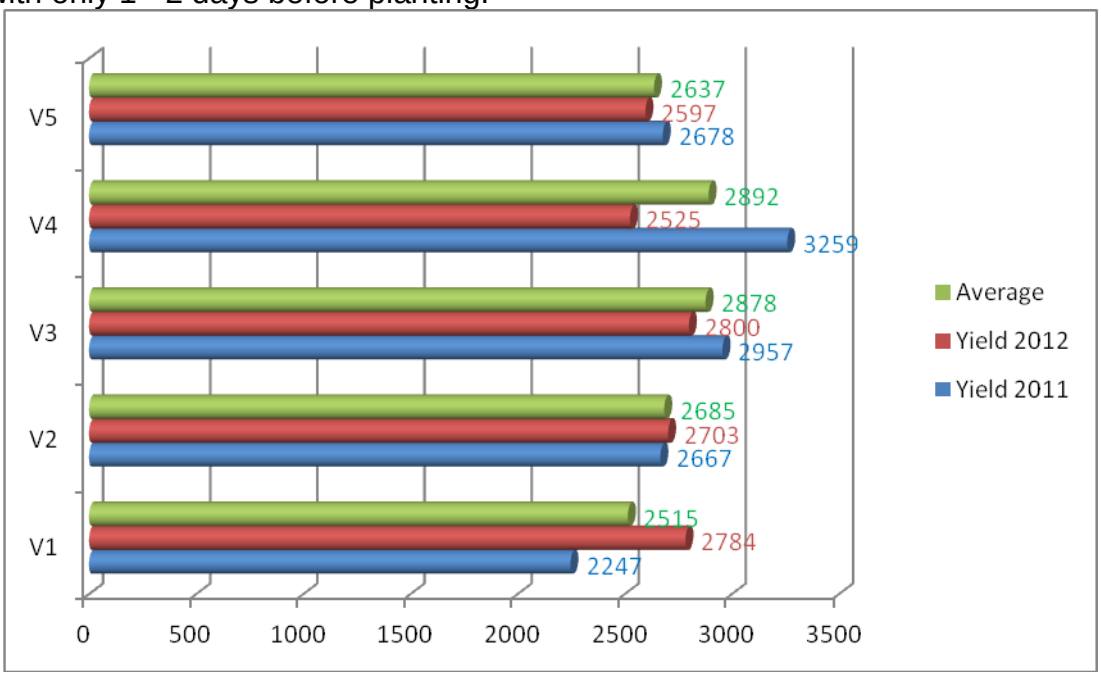

Fig. 1. Influence of keeping kind until sow of the groundnut seed upon yield (2011 - 2012)

Thus, the drying efficiency of 48.1 - 51.5% compared to 50.2% and the number of pods per 100g to 70.7 varies from 64.0% from 66.0%, while the number of seed per 100g

pods ranged from 203 - 221.2 compared to 212.1. The percentage of dry seed is between 5.1 - 6.0 versus 5.2, and the mass of 1000 beans range from 1415g to 1562g from 1515g. Lower values of seed yield was registered namely 6.86 - 70.9 compared to 71.3% and the weight of 1000 seeds, 496 - 523g compared to 526g.

Table 1

Influence of keeping kind of groundnut seed upon some physical issues (2011-2012)

Variant	Efficiency		No. pods in 100g	No. seed in 100g pods	No. seek pods	MMP (g)	MMB (g)
	drying	seed					
V1	48.1	68.6	70.7	203.3	6.0	1415	496
V2	51.5	70.9	66.7	215.0	5.1	1500	513
V3	49.8	70.8	66.0	221.2	5.5	1515	503
V4	50.2	70.2	64.0	218.7	5.7	1562	523
V5	50.2	71.3	66.0	212.1	5.2	1515	526

CONCLUSIONS

From research conducted in the experimental results conclude that peanut seeds can be removed from pods long before planting if beans, beans that were well dried before peeling.

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