

The Usage of Textile Fabrics in Multiplication Technologies of Some Species from Spontaneous Flora with Ornamental Value

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SUMMARY

The aim of the experiences was to design fabrics which respond to the demands required by their usage as biodegradable materials for plants' crop. In the present paper are showed the preliminary results of making some textile strips obtained by weaving which will be in the future biodegradable support for seeds, in our case for species from spontaneous flora cultivated for ornamental purpose (*Allium ursinum* L., *Polygonatum latifolium* (Jacq.) Desf., *Polygonatum officinale* All.). At designing the prototypes of biodegradable stripes we have in view the following aspects: possibility of placing seeds on stripe at different distances, function of specie and crop destination, to assure the optimal distance for plants' grow and development; the necessity of obtaining some holes by weaving; to assure a certain space between the fibers of the stripe which will allow the entrance of the plants' roots. In this stage cotton was used. Dimensional parameters of the stripes were established function of seeds size (0.5-10 mm) and also by the necessary space between holes and we establish the values which allow a correct choose of units' adjustment. After structure concretion and establishment of the specific conditions for fibers liasson were realised seven variants of stripes (with/without delimitation spaces), with 40 yarns/layer and with a width of 25 mm. Technological results are presented in Tble 1. From our research was observed that usage of stripes did not influence the germination process, this one being close to the one obtained in conventional condition, without textile stripes (42-47% *Allium ursinum*, 75-80% *Polygonatum sp.*), but it is efficient in making easier the direct drill in field for crops.

Tab.1

Woven strips from cotton yarn

Working parameters	Variants with holes without delimitation spaces				Variants with holes and delimitation spaces		
	V1	V2	V3	V4	V5	V6	V7
fineness (Nm)	50/2	50/2	50/2	50/2	50/2	50/2	50/2
desity (inserts/cm)	12.2	6.1	12.2	6.1	8.3	6.3	4.3
yarn consumption (g/m)	8.58	6.25	8.25	6.25	7.85	6.85	5.85
hole size (mm)	18	17	17	18	14	20	30
space between holes (mm)	-	-	-	-	15	20	30
hole shape	Hole with edges at same level		Hole with one edge at another level		Hole with one edge at another level. Woven portion to the enclosure		

Keywords: woven textiles, biodegradable materials, ornamental plants, seeds, germination

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