STUDY OF FIGHTING METHODS AGAINST WEED SPECIES IN SEABUCKTHORN FIELD

Lecturer: Amarsaikhan.J
Azzaya.T
Otgonsuren.M

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- Researched state
- Research goals and objectives
- Materials, method
- Research results
- Conclusion and recommendation

Researched state

Ariunaa. O. and Otgonsuren.M on the topic "Development of weed control methods in the field of blackberry" IPP (2001-2003)

Doctor Atarsaikhan.T and other researchers experiment "Effect of covering for cultivation friut and berries" (2020-2022)

Garber, R.H. (1973) US Department of Agriculture Publication 1. ARS-S-19. pp. 69-77

SCIENCE AND TECHNOLOGY PROJECT REPORT 2003-2005 5.7.4

Судалгааны ажлын зорилго, зорилт

To determine in detail the distribution and density of weeds species in the sea buckthorn field.

Developing optimal methods of fighting.

Materials, method

Weed distribution and density

A total weed species and density of the experimental fields was determined by methods of E.I.Liberschtaine and A. Tulikov.

Weed species

V.I. Grubov, G. Tserenbaljids Identification books used by to identify weed species

For control for weeds

- In the chemical control of weeds, Tornado 50% herbicide was used
- Biological control applying black synthetic film, wood shavings, and biochar
- In mechanical control, during the growth period of the plants, the weeds in the tree pot and in the strip were pulled by hand and mowed 3 times with a mechanical mower.

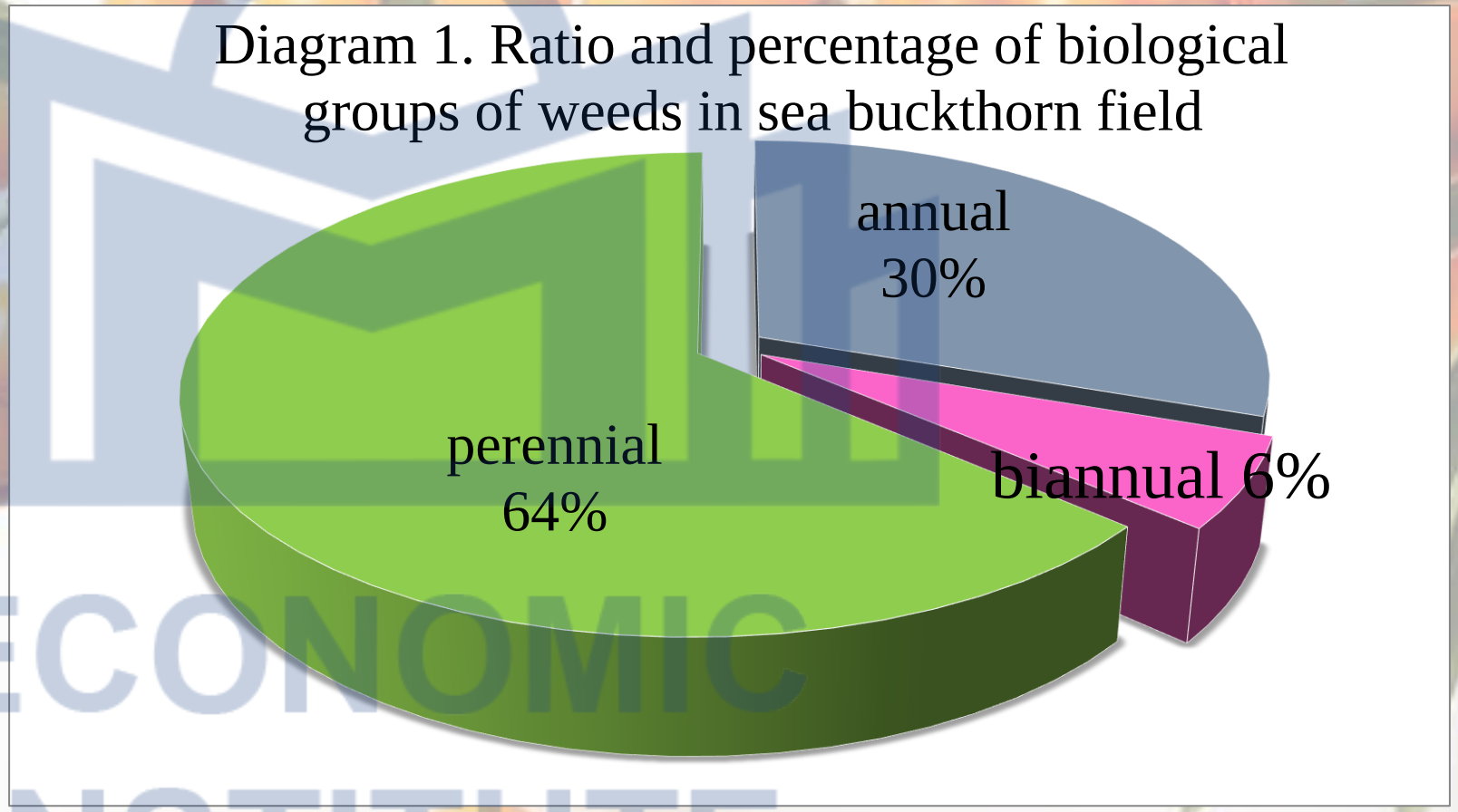
Experiment scheme

Black synthetic film	**Black synthetic film**	**Control**	**Black synthetic film**
Control	**Wood shavings**	**Wood shavings**	**Wood shavings**
Biochar	**Control**	**Biochar**	**Biochar**
A field fought for mechanical (mowed) method			
Tornado, 50%, 2.5l/ha	**Tornado, 50%, 2.5l/ha**	**Tornado, 50%, 2.5l/ha**	**Control**
Control	**Tornado, 50%, 3l/ha**	**Tornado, 50%, 3l/ha**	**Tornado, 50%, 3l/ha**

Research results

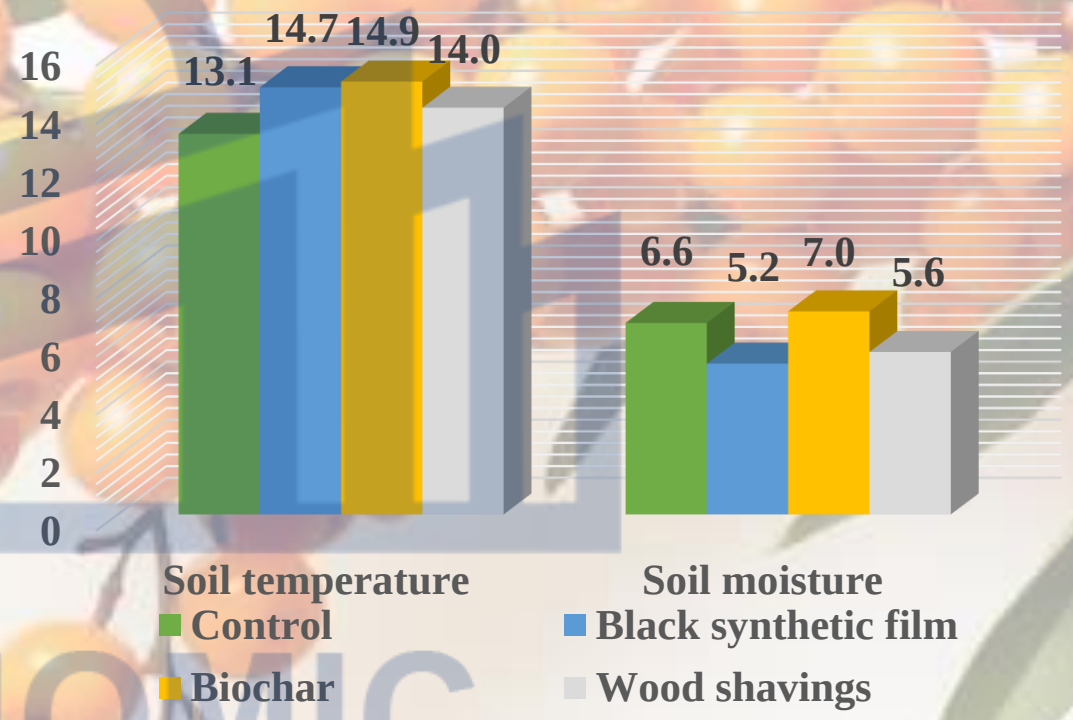
The level of weeds in the researched area is 4-5 points

Diagram 1. Ratio and percentage of biological groups of weeds in sea buckthorn field



Research results

the changes in soil temperature and moisture were analyzed 10, 30, 40, and 60 days after the application of the black synthetic film, and compared to the control variant, the temperature of the soil increased by 0.9-1.8 ^{0}C and moisture was retained



Research results






In the spring field of sea buckthorn, in the third ten days of May, weed count was 42-109 weeds per 1 m^2, among which there were *many Chamaenerion angustifolium (L.) Scop, Agropyron repens, Cirsium arrvense, Sonchus Arvensis L. Chenopodium album* etc.. weeds level at 4-5 points. The result of herbicide application was 97.6-100% in Tornado 2-3 l/ha version, with yellowing of weeds and stunted growth from the 14th day.

Research result

№	Variants	Weed decrease, %	Average yield t/ha	Additional yield t/ha	Additional yield, %
1	Control	-	6.4	-	
2	Black synthetic film	100	7.6	1.2	18.7
3	Wood shavings	100	8.1	1.7	26.5
4	Biochar	100	8.4	2	31.2
5	Tornado 50%	97.6-100	8.2	1.8	28.1
6	Mechanical mower	100	7.1	0.7	10.9

Experimental error	**0.046**
Error of mean difference	0.039
P value	<0.05

Conclusion and recommendation

It was considered that perennial weeds were the most widespread in the sea buckthorn fields of "Polyvit" LLC in Batsumber Sum, Tuv Province, which created the conditions for increasing the spread of harmful organisms.

In addition to 100% result showed in variants of black synthetic film, wood shavings and biochar covers for weed control, the crop was increased by 10.9-31.2% due to the retention of soil moisture.

The biological results of 97.6-100% were shown in the fight with Tornado herbicide (glyphosate) against perennial, root and rhizomatous weeds spread in the sea buckthorn fields.

During the growth period, depending on the height of the weeds, weeding was done mechanically 3 times, which limited the spread of rodents.

Comparing the weed control options, it was found that the biological method option with black synthetic film mulching was more effective and had the advantage of facilitating human labor than other mechanical and chemical methods tested.

It is necessary to study in detail the relationship between weeds and other harmful organisms in sea buckthorn fields

Thank you for your attention