



**THE NATIONAL ACADEMY OF AGRARIAN SCIENCES
OF UKRAINE**

INSTITUTE OF VEGETABLE AND MELON

Soil stratification for weed control

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«Ražas svētki Vecaucē»
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Loosening-separating machine Stratifier



Лушение. Стерня после очесывающей жатки
Замедленная съемка 240 кадров в секунду

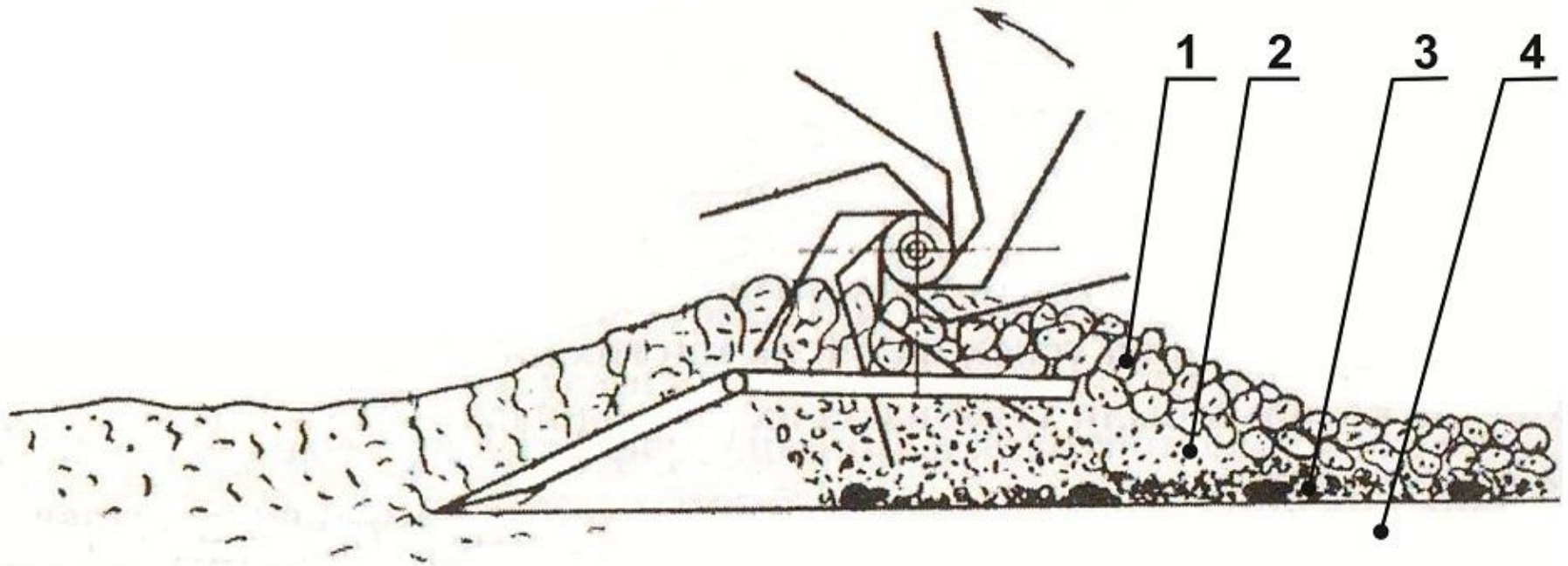


Механическая прополка (глубина обработки 15 см)
Замедленная съемка 240 кадров в секунду



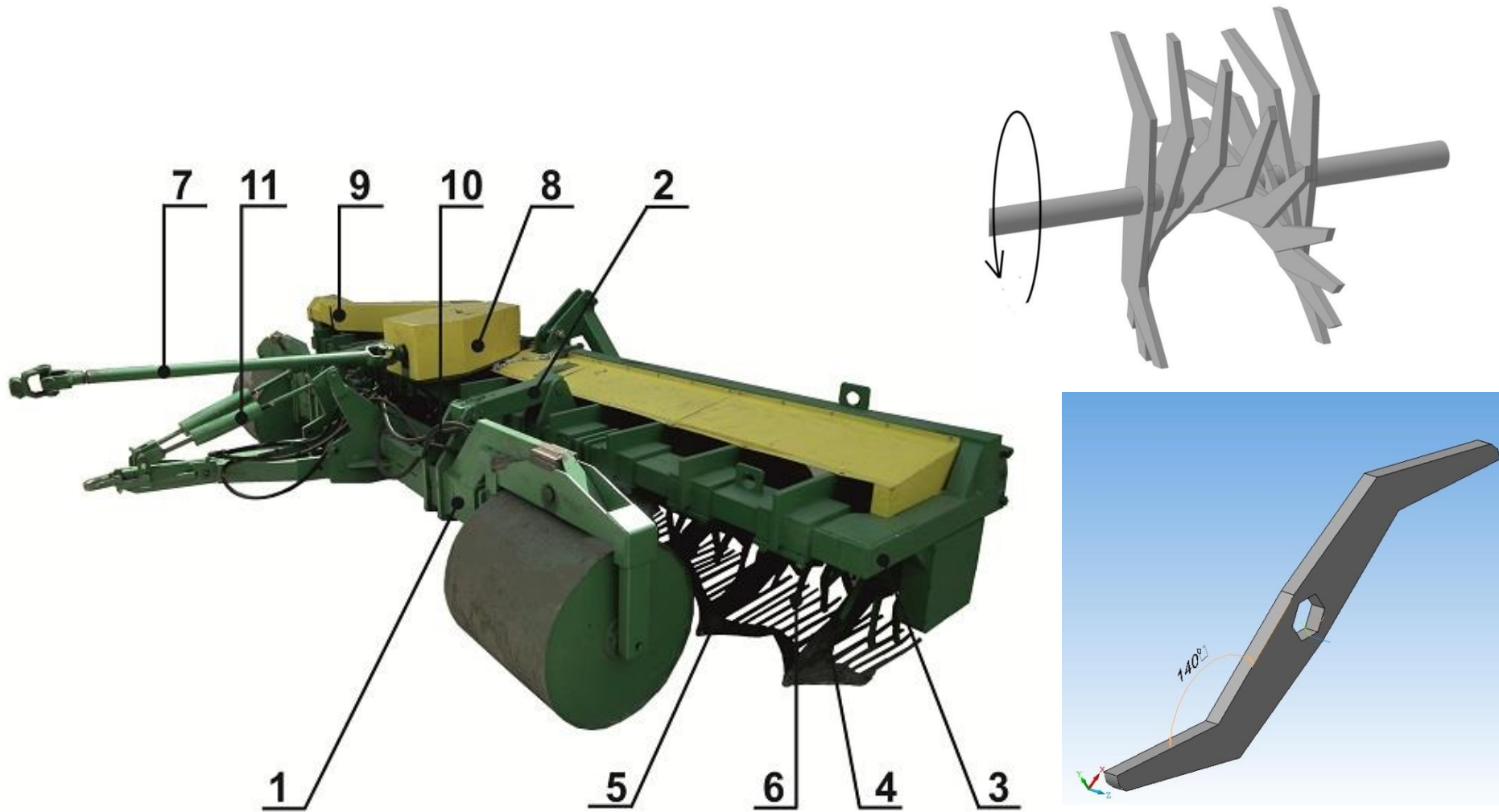
Предпосевная обработка. Вид сзади.

Structure of the soil processed layer



**1 - the above seed layer; 2 - the seed layer;
3 - sub seed layer; 4 - sub-plow layer.**

Loosening-separating machine Stratifier



1 - the chassis; 2 - the lever mechanism; 3 - frame; 4 - the rack; 5 - ploughshare with separating gratings; 6 - rotor with rippers; 7 - cardan gear; 8 - a gear transmission; 9 - chain transmission; 10 - mechanism for adjusting the depth of tillage; 11 - mechanism for adjusting the horizontal position of the frame.

3a

Study field after mechanical weeds destruction



Study field where prevail couch grass



Soil surface directly after the first treatment



Soil surface 1 week after the first treatment



Soil surface 35 days after the first treatment



Soil surface 35 days after the second treatment



The impact of the use of the machine on the weediness of the test area

Research options	Date of experiments	Quantity of weeds						Mass of weeds	
		Amount/m ²			Decrease, % to control			g/m ²	Decrease, % to control
		In total	Dicots	Cereals	In total	Dicots	Cereals		
Control	18.05.21	90,6	64,4	26,2					
	31.05.21	117,0	76,9	40,1					
	12.06.21	114,1	75,3	38,8			2055,3		
	27.06.21	118,6	77,4	41,2			2429,7		
	22.08.21	117,6	78,1	39,5					
Stratifier Machine	18.05.21	58,1	37,3	20,8	35,9	42,1	20,6	-	-
	31.05.21	62,2	32,2	30,0	46,8	58,1	25,2	-	-
	12.06.21	41,4	13,8	27,6	63,7	81,7	28,9	493,2	75,8
	27.06.21	40,2	12,5	27,7	66,1	83,9	32,8	477,5	80,3
	22.08.21	38,7	10,1	28,6	67,1	87,1	27,6	-	-
Herbicide (Bifor Progress, KE (1.5 l/ha)+200 mg/ha	18.05.21	67,7	45,3	22,4	28,3	29,7	14,5	-	-
	31.05.21	8,3	4,0	4,3	92,9	94,8	89,3	-	-
	12.06.21	6,4	2,1	4,3	94,4	97,2	88,9	123,3	94,0
	27.06.21	5,5	1,5	4,0	95,4	98,1	90,3	112,4	95,4
	22.08.21	5,1	1,2	3,9	95,7	98,5	90,1	-	-

Thank you for attention!



Game over
Next level?