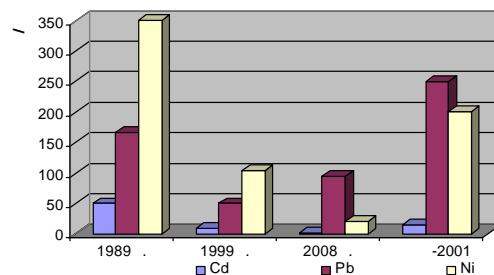


$\cdot \cdot$, $\cdot \cdot^{\perp} \cdot \cdot$, $\cdot \cdot$, $\cdot \cdot \cdot$, $\cdot \cdot^{\perp} \cdot \cdot$,

, 2,7, 2,0 2,1% , 0,064, 0,015 0,014%
 , 0,2, 0,2 0,4% ; 2,4, 5,3
 5,2% 2 5; 2,11, 0,24 0,22% 2 ; 36, 425 1452 / 5;
 6, 50 167 / ; 16, 104 353 / ; 160, 1743
 4589 / ; 5, 11 31 /
 :N 13, 13 11.



[2-4].

17.4.3.07-2001 [1].

2000 .

0-20

0.8%

kcl 4,6.

, 118

2000 .

61

/ ; 3

35 /

5)

$$- \text{N}_{180}\text{P}_{60}\text{K}_{100}.$$

10%

2000 ..

(

)

1

2 -

10

(2006-2008 .)

1,

1989

(2.1.7.020-94).

 $(\quad . 2),$

1 2 -

, 20,2, 29,0 46,3%
70,2, 52,0 48,0%

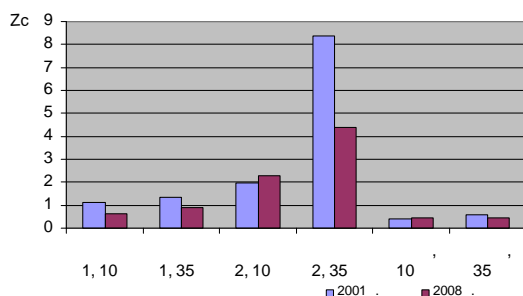
0,5 Zc 4,4, 2008 .

0,4 8,4 2001 .

(Zc 0,4-06),
(Zc 2-8,4).

9 (62,5%)

35 / 182%,

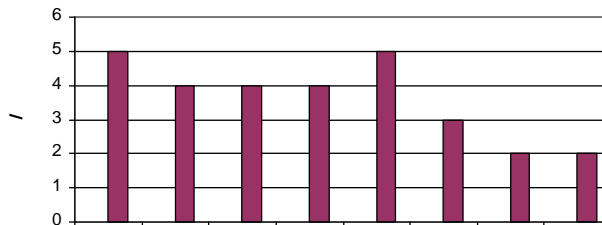
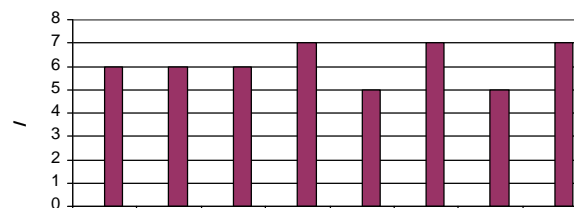
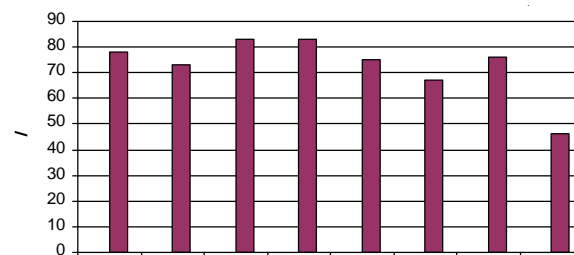
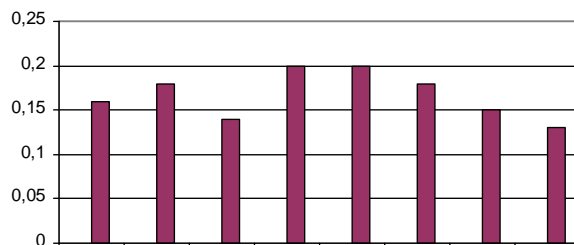


. 2.

2000-2008			
	./ 2	./ 2	%
	159,9	-	
1, 10	194,1	34,2	21,4
1, 35	259,8	99,9	62,5
2, 10	192,6	32,7	20,4
2, 35	225,7	65,8	41,1
10	217,7	57,8	36,1
35	322,1	162,2	101,4
NPK	450,4	290,6	181,7
05	57,9		

(. 3).
(2001-2008 .),

10 35 / 10 /



. 3. (), (), (), ()
3,0 / , 0,3; 50; 30

1. 17.4.3.07-2001.

. 2.

(78

45-48. 3.

2002. - 3. - 38-40. 4.

2002. - 140

HEAVY METALS IN THE SYSTEM ORGANIC MANURE-SOIL-PLANT

G.E. Merzlaya, S.P. Zamana, A.V. Sokolov

Summary. At the long experiment manure and composts from sewage sludge of recommended rates didn't increased a content of heavy metals in soil and plant and an yield and quality grasses.

Key words: manure, composts from sewage sludge, heavy metals, soil, plant.