

... , , ... , ... ,

(, $N_{60}P_{240}K_{60}$. 5

()
2-
()
[2,4].

[2,4].

[6],

(. 1-3)

(-).

Pb, Cu,

Zn Cd.

1,29 - /100 , 4,7 %, KCl 6,6,
/100 , 22,5 -
95 %.

0,78 ² 1,17 ²

$CuSO_4 \times 5H_2O$; $Pb(CH_3COO)_2$; $CdSO_4$ $Zn(CH_3COO)_2 \times 2H_2O$;
110; Pb – 40; Cd – 0,6. / : Cu – 90; Zn –

, (3

: 1) (), 2)

100 / (100), 3)

100 / + $N_{60}P_{60}K_{60}$ (100 + $N1P1K1$), 4)
 $N_{60}P_{120}K_{60}$ ($N1P2K1$), 5) $N_{60}P_{240}K_{60}$ ($N1P4K1$), 6) $N_{60}P_{480}K_{60}$
($N1P8K1$).

2,

[3,5].

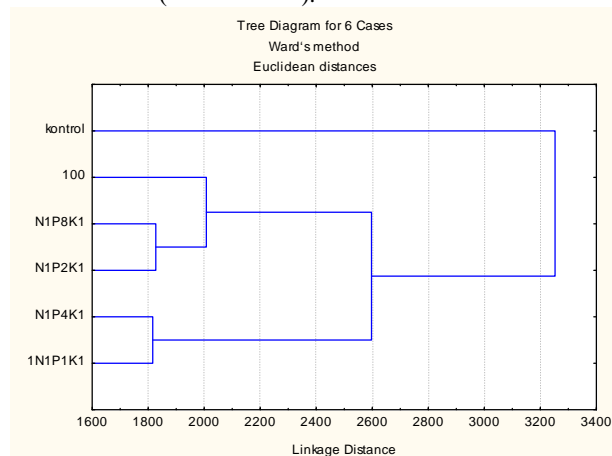
(. 1). 2

(), 2, 4, 6.

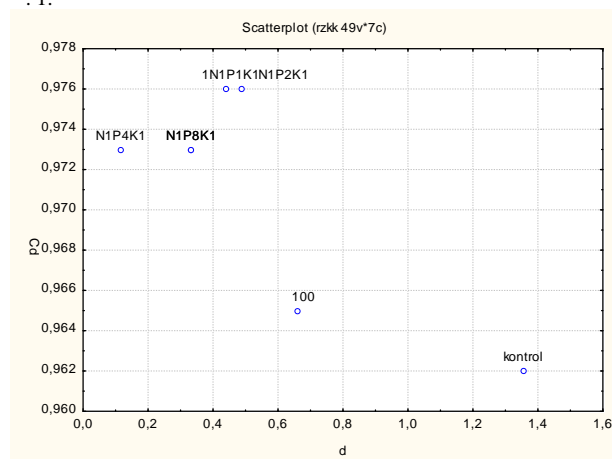
3 5.

1.	$CO_2/$,						
	5 $CO_2/$,						\pm
1	10,03	9,97	9,94	9,82	9,95	9,94	0,005
2	10,22	10,35	10,39	10,15	10,52	10,33	0,01
3	11,65	11,27	11,62	11,42	11,10	11,41	0,005
4	10,22	10,08	10,12	10,11	10,03	10,11	0,005
5	11,46	11,56	11,40	11,45	11,35	11,44	0,01
6	10,44	10,37	10,33	10,54	10,66	10,47	0,005

()
2-
()
[2,4].



. 1.



. 2.

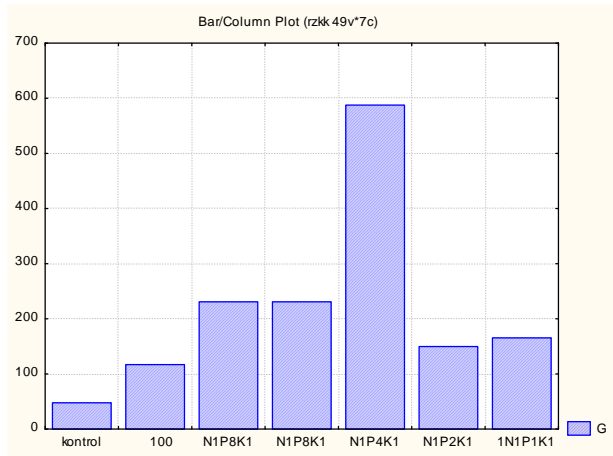
Cd

d.

» [1]

(.1)

: ()



2.					
			%		%
1	150	45	30	0,6	57
2	150	52	35	0,7	50
3	150	58	39	1,0	29
4	150	61	40	0,9	36
5	150	91	61	1,1	14
6	150	58	39	0,8	43

(. 5)
 $N_{60}P_{240}K_{60}$,
 $N_{60}P_{60}K_{60}$ (. 3),
 (. 2)
 $N_{60}P_{120}K_{60}$ $N_{60}P_{480}K_{60}$ (. 4 6)

2 emission and microbocenosis of chernozem contaminated with heavy metals during agrochemical reclamation

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Summary. In a lysimetric experiment, the control sample (without fertilizers) was proved to be as crisis. The used fertilizing systems differently promoted the restoration of microbial community. The treatment with the intermediate content of phosphorus was optimum.

Key words: emission, fertilizing system, phytotoxicity, microbial community, microbiological activity.