



( $r = 0,765 \pm 0,206$ ).

( ( . 2).

)

2.		808											
		1-3			( . . 1)								
		1	2	3	1	2	3	1	2	3	1	2	3
		0,48	0,05	0,42	-0,52	0,67	0,47	0,57	-0,14	0,38	-0,02	0,72	0,50
90 90		0,60	0,12	0,56	-0,37	0,47	0,32	0,67	-0,04	0,55	0,16	0,56	0,54
N <sub>90</sub> 90 90		0,52	0,08	0,48	-0,52	0,75	0,55	0,61	-0,12	0,43	0,01	0,79	0,58
		0,80	-0,02	0,66	-0,37	0,66	0,53	0,86	-0,23	0,61	0,14	0,78	0,66

- 178,7 / , 65-75 / . -

( ( . 2).

1,6) ( 10 ). (

808 -

N<sub>45</sub> 1 N -

N<sub>90</sub> - 4 ,

1,9 / .

( 1 N , N<sub>45</sub> - 13,1, N<sub>90</sub> - 13,3 N<sub>135</sub> - 7,4 .

6,6-33,6%, 56,8%. 1 N<sub>45</sub>-28,0 26,0; N<sub>90</sub>-14,0 13,8;

N<sub>135</sub>-10,9 11,3 . , (

29,6%. , 1,3-10,6% ) , -

11,0%, - 37,6%.

(1983-1992 .)

( . 6,0-6,5, 2,00-2,05%; 2001 . -11

P<sub>2</sub>O<sub>5</sub> - 100-120 / ; K<sub>2</sub>O - 140-160 / , ( )

- 1,18-1,35 / <sup>3</sup>) - 6 55 % ( ) 28%.

( 10 )

55,9 / , - 62-64 / . -

808 -

12 808 1972-1982 .

N<sub>90</sub> 90 120 70-78 / . 30,1 / , -

- 53,0 / , 22,9 / .

( ,

35,7%

56,8%, - +17,2%-17,9%.

1993-2007 .

(N ) 0-80 , , -

-

9 33,5 / , - 45-68

70-90 / . 1989, 1990 1991 ., N<sub>45</sub> 22,9, N<sub>90</sub>-16,9, N<sub>135</sub>-12,5 / . -

154-174 / . , ( 39, , , -

24 39 7 . -

(1,18-1,25 / <sup>3</sup>), 50 / , -

(1,35-1,45 / <sup>3</sup>) 68-72 / . 2 60-72 / .

( 55-60 / ) 24

. , 1984-1991 .

61,6 140,5

N , N<sub>90</sub>P<sub>90</sub>K<sub>120</sub> - 113,0 ,

4

1,5-2 , -  
 6-14 , - 6-9 : 1)  
 - 60-80%. - -  
 , ; 2) -  
 , ; 3) -  
 , ; 4) -  
 ( , -  
 , . .) 30, N<sub>90</sub> - 20 N<sub>135</sub> - 14-15 / . N<sub>45</sub>

# **Recoupment of nitrogen fertilizers in high-input growing technology of winter wheat in the central nonchernozemic zone**

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**Summary.** Long-term studies reliably revealed the development features of winter wheat productivity depending on the level of soil fertility, precursors, rates of nitrogen fertilizers, phytosanitary state of plantations, features of crop cultivars, and weather conditions.

**Key words:** recoupment, high-input technologies, nitrogen fertilizers, winter wheat.