

[illegible]

23,3 / (30%) 20,5 / (27%) -
(N)₁₂₀ (N)₉₀ -

1.

(2006–2008 .)

		-	
	145,0	205,0	172,0
, /	18,6	30,1	24,2
/			
, %			
N	2,60	2,62	2,66
P	0,34	0,35	0,38
K	3,31	2,79	3,23
, / N	50,20	78,56	62,70
P	6,20	9,71	8,75
K	63,11	71,58	52,36
-	39,70	38,57	42,48
, /			
, %:			
N	1,04	1,26	1,18
P	0,15	0,14	0,20
K	1,93	1,00	1,84
, / :			
N	41,19	41,51	50,05
P	5,98	5,41	8,53
K	75,10	54,91	76,25
, / :			
N	91,39	120,07	112,75
P	12,18	15,12	17,28
K	138,21	126,49	128,61

2.

(/)
(2007–2009 .)

	-	(NPK) ₁₂₀ I	(NPK) ₉₀ II	(NPK) ₆₀ III			
	-				I	II	III
	75,6	173,7	154,7	128,0	98,1	79,1	52,4
-	83,3	194,3	181,1	145,8	111,0	97,8	62,5
	98,9	210,7	208,2	161,3	111,8	109,3	62,4
-							
	96,1	210,3	204,7	163,6	114,2	108,6	67,5
05	15,3						

18,1 / (9%) (NPK)₁₂₀

(. 3).

3.

, / ,
(2008–2010 .)

	-	(NPK) ₁₂₀ I	(NPK) ₉₀ II	(NPK) ₆₀ III			
					I	II	III
	78,2	180,5	138,9	115,4	102,3	60,7	37,2
	82,8	180,0	166,1	137,9	97,2	83,3	55,1
-	91,5	200,6	193,6	167,1	109,1	102,1	75,6
	94,6	218,7	200,4	163,4	124,1	105,8	68,8
HCP ₀₅	15,7						

(NPK)₉₀

193,6 200,4 / .

()

, 55,7 27,5 / (39 16%),
61,5 34,3 / (44 20%). (NPK)₁₂₀

20,6 38,7 /

(NPK)₆₀

51,7

(NPK)₆₀

, 29,2 25,2 / .

102,1 105,8 / (NPK)₉₀, (NPK)₁₂₀
109,1 124,1 / .

(NPK)₁₂₀ (NPK)₉₀ ,
- 204,7–210,3 / 208,2–210,7 / -
90–92%,

/ (14–31%), - 18–25 (16–21%)
- 3–22 / (2–18%).

- 112 / ,

213–287 / (

), - 18–21 / (-

).

5,9%,

- 7,5–8,0%.

-

: 139–225

/ , 179–246 325–445

/

(+ 25,6 /)

210–324 /

1,9–2,1

81–173 /

(NPK)₁₂₀ -37,0 / (21,3%) 36,6 / (21,0%), (NPK)₉₀,
, 53,5 50,0 / (35,0 32,0%) (. 2).

16,4 / (NPK)₁₂₀ 27,1 /

(NPK)₉₀

()

(NPK)₁₂₀ 111,8 114,2 / , (NPK)₉₀ - 109,3

108,6 /

	5,9	7,5%.	-	2.	. .	-
		80–81%,	-		//	.
- 76–73%,		- 0,63 / ³ .	-	2001. 1. .6–7		-
,			-	3.	. .	-
.					//	2001 1 . 22
	1,4,	- 1,7.		4.	. .	-
					//	2010. 4
1.				. 25–27		
			-	5.	.	// .2001 6 .10
1945 . .,1944			; 1941–	6.1973, 240 .
				7.1977, 315 .
				8.		.;1967 . 39–41.

POTATO YIELD AND SOIL FERTILITY IN A CROP ROTATION WITH ANNUAL GREEN MANURE CROPS UNDER KAMCHATKA CONDITIONS

N.I. Ryakhovskaya, N.M. Shalagina

Kamchatskii Center of Agricultural Service, per. Timiryazevskii 5, Elizovo, Kamchatskaya oblast, 684010 Russia

It was found that the plowdown of blue lupine and phacelia biomass increased the contents of available phosphorus, exchangeable potassium, and nitrate nitrogen in the soil and improved the soil structure under conditions of Kamchatka. The highest yield of potato tubers per rotation cycle was obtained under the direct effect and aftereffect of blue lupine and phacelia with the simultaneous application of N120P120K120 and N90P90 K90, which were found to be similar in efficiency.

Keywords: green manure crops, blue lupine, phacelia, spring rape, fertility, effect and aftereffect, crop yield, potato.