

follows: Jualy - 25,3%, Edem - 26,3%, Tien-Shanski - 27,3%, Tekes - 27,6% and Zholbarys - 28,6%. Middle-ripening varieties had the following values of the affected plants: Berkut - 26,3%, Ushkonyr - 26,6%, Nur-Alem - 28,6% and Aksor -

31,6%. Plants of the moderately late variety Udovicki was exposed to the disease at the level of 28,0%.

TABLE I: PREVALENCE AND DEGREE OF INJURY BLIGHT ON THE PLANTING OF NEW VARIETIES OF POTATOES (2014-2015)

Varieties	Years of recognizing	Number of potato leaves, pieces	Infected, pieces							Overall score	The spread of disease,%	Sum of frequency points	The degree of infection,%
			0	1	2	3	4	5	6				
Aksor (standard)	1998	50	16	6	7	11	8	2	0	34	68	95	31,6
Berkut	2014	50	21	6	6	8	8	1	0	29	58	79	26,3
Zholbarys	2013	50	20	5	6	9	8	2	0	30	62	86	28,6
Jualy	2012	50	22	5	6	10	6	1	0	28	56	76	25,3
Nur-Alem	2013	50	19	5	8	9	7	2	0	31	62	86	28,6
Tekes	2012	50	20	6	6	9	7	2	0	30	60	83	27,6
Tien-Shanski	2014	50	21	5	7	8	7	2	0	29	58	81	27,0
Udovicki	2013	50	20	5	7	9	7	2	0	30	60	84	28,0
Ushkonyr	2012	50	21	6	6	8	7	2	0	29	58	80	26,6
Edem	2016	50	21	5	8	8	6	2	0	29	58	79	26,3

In order to control fungal diseases various fungicides were recommended. According to the test results a variety of biological and economic efficiency of fungicides against fungal diseases of potato were revealed (Table 2). Infected plants on control was 31,6%. After threefold application of the drugs the degree of damage plants decreased to 3,3-4,2%. Relatively lower biological efficiency was marked on the variant with a fungicide Bravo. The average value of the drug was amounted to 86,71% during 2 years of the research. In experiments with drugs Ordan, Kurzat P, and Fungoceb percentage of biological

efficiency was at 88% (87,34%, 87,97% and 88,29%, respectively). Higher rates were obtained on variants with new drugs and Thanos and Ratamil in comparison with the above mentioned fungicides. Thus, treatment of potato plants with drug Thanos in norm of 0,6 kg/ha and Ratamil in the norm of 2.5 kg/ha provided a positive effect of the protection against Alternaria up to 89,55% and 89,87%, respectively.

Studied fungicides differed according to the economic efficiency, in terms of productivity and the value of the stored potato crop.

TABLE II: THE BIOLOGICAL AND ECONOMIC EFFECTIVENESS OF NEW FUNGICIDES AGAINST POTATO ALTERNARIA (2014-2015)

Treatments	Infected plants by Alternaria%		Biological efficiency,%	Yields of tubers t / ha	Saved potato crop	
	before treatment	after three treatments			t / ha	%
Control (no treatment)	31,6	-	-	25,5	-	-
Bravo	-	4,2	86,71	31,4	5,9	23,14
Ordan	-	4,0	87,34	31,8	6,3	24,71
Ratamil	-	3,5	89,87	34,1	8,6	33,73
Fungoceb	-	3,7	88,29	33,0	7,5	29,41
Thanos	-	3,3	89,55	33,7	8,2	32,16
Kurzat R	-	3,8	87,97	32,5	7,0	25,49

The economic efficiency of fungicides Ordan Kurzat R and Fungoceb was higher. Treatment of potato plants against Alternaria in the growing season with these fungicides have ensured the preservation of 6,3, 7,0 and 7,5 t/ha of crop, which is 24,71%, 25,49% and 29,41% to the untreated control. Application of fungicides Thanos and Ratamil have led to the increase in the potato yield up to 8,2-8,6 t/ha compared to the control and the value of the stored harvest was 32,16% and 33,76%, respectively.

IV. CONCLUSION

Thus, according to the results of our studies new varieties such as Berkut, Jualy, Ushkonyr and Edem were the most resistant to Alternaria. All studied new fungicides have had highly effective activity against fungal diseases (Alternaria). During the treatment against Alternaria fungicides Ratamil (89,87%) and Thanos (89,55%) were the most

efficient. Tuber yield without diseases was amounted up to 23,14-33,73%.

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