

PUE “INSTITUTE OF RADIATION SAFETY “BELRAD”

APPROVED

Director of PUE “Institute of Radiation
Safety “Belrad”

_____ A.V. Nesterenko

“ ____ ” _____ 20__

SHORT REPORT

**UNDER THE CONTRACT No. 36 (ATLAS-2) DATED TO JUNE 25, 2008
(STAGES 9 AND 10)**

Deputy director
for international cooperation

_____ V.I. Babenko

« ____ » _____ 20__

MINSK

2010

According to the Contract No. 36 dated to June 25, 2008 following actions given in the table 1 were performed in framework of the stages 9 and 10.

Table 1 – Data on the number of measurements and the quantity of the preparation VITAPECT given in framework of the stages 9 and 10 to the Contract No. 36.

Settlement	Date	Number of measurements			Quantity of VITAPECT		Notes
		expected	all	children	expected	actual	
Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region	15.10.2009	-	78	58	-	-	
	19.05.2010	-	61	58	-	-	
Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region	08.09.2009	110	105	92	220	-	
	10.11.2009	-	87	75	-	-	Control measurement
	22.02.2010	-	-	-	-	220	
	12.05.2010	110	86	76	-	-	
Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region	17.09.2009	70	80	56	140	-	
	11.11.2009	-	65	49	-	-	Control measurement
	22.02.2010	-	-	-	-	140	
	23.03.2010	70	80	62	-	-	
Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region	08.09.2009	133	137	114	266	-	
	22.02.2010	-	-	-	-	266	
	16.03.2010	133	128	11	-	-	
Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region	10.09.2009	69	69	55	130	-	
	22.02.2010	-	-	-	-	130	
	25.03.2010	69	78	59	-	-	
Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region	11.09.2009	60	66	49	120	-	
	22.02.2010	-	-	-	-	120	
	14.05.2010	60	91	64	-	-	
Simonichi secondary school and kindergarten	09.09.2009	162	160	133	324	-	
	22.02.2010	-	-	-	-	324	

of Lelchitsy district of Gomel region	17.03.2010r.	162	156	133	-	-	
Sloboda basic school and kindergarten of Lelchitsy district of Gomel region	11.09.2009r.	61	61	55	130	-	
	22.02.2010r.	-	-	-	-	130	
	24.03.2010r.	61	66	63	-	-	
Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region	09.09.2009r.	60	64	37	120	-	
	22.02.2010r.	-	-	-	-	120	
	24.03.2010r.	60	51	38	-	-	
Tonezh secondary school and kindergarten of Lelchitsy district of Gomel region	10.09.2009r.	75	75	58	150	-	
	22.02.2010r.	-	-	-	-	150	
	26.03.2010r.	75	56	47	-	-	
TOTAL:		1600	1900	1542	1600	1600	

Hereafter there is a statistical data processing.

BUDA-SOFIYEVKA

Characteristics	Value	Source
¹³⁷ Cs contamination density of the territory	2.33 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	300 persons	Buynovichi village council, dated to 01.10.2009
External dose	0.28 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.00 mSv/a	-----<-----
Cumulative dose	1.28 mSv/a	-----<-----

According to the data dated to October 2009 in the Buda-Sofiyevka basic school there are 49 children, 20 teachers and 15 persons of another staff; in the kindergarten there are 12 children.

October 15, 2009

The first measurement of children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 78 persons (58 children and 20 adults).

Average ¹³⁷Cs specific activity in the whole group (n = 58): (31.6 ± 1.5) Bq/kg.

Average ¹³⁷Cs specific activity in the critical group (n = 15): (44.4 ± 3.8) Bq/kg.

Median value in the whole group: 30.0 Bq/kg.

Median value in the critical group: 37.6 Bq/kg.

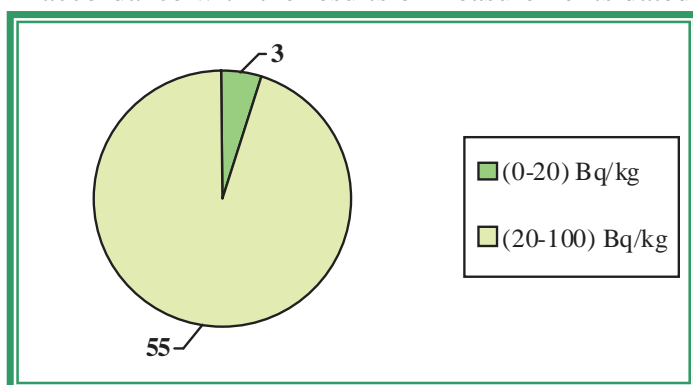
The table 2 demonstrates the maximal levels of ¹³⁷Cs specific activity (the critical group) according to the results of measurements dated to October 15, 2009.

Table 2

No.	Surname Name	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
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	Patronymic					
1.	Sh.N.A.	SCHOOLBOY	M	55	1995	83.7
2.	L.Yu.N.	SCHOOLGIRL	F	47	1998	69.4
3.	B.A.D.	SCHOOLGIRL	F	42	1995	61.7
4.	B.E.D.	SCHOOLGIRL	F	49	1997	40.3
5.	B.R.S.	CHILD PRESCHOOL AGE	M	22	2004	40.0
6.	T.N.V.	CHILD PRESCHOOL AGE	F	18	2003	39.3
7.	B.M.L.	SCHOOLGIRL	F	46	1998	39.0
8.	Sh.D.V.	SCHOOLBOY	M	35	1998	37.6
9.	Yu.V.M.	SCHOOLBOY	M	25	2000	37.2
10.	A.V.N.	SCHOOLGIRL	F	21	2002	36.7
11.	B.A.A.	CHILD PRESCHOOL AGE	F	18	2004	36.6
12.	S.S.V.	SCHOOLGIRL	F	36	1999	36.5
13.	V.E.N.	SCHOOLGIRL	F	34	1996	36.0
14.	Yu.I.M.	CHILD PRESCHOOL AGE	M	14	2006	35.9
15.	B.A.A.	CHILD PRESCHOOL AGE	M	17	2004	35.7

The figure 1 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to October 15, 2009.



←Figure 1 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to October 15, 2009

May 19, 2010

The second measurement of children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 61 persons (58 children and 3 adults).

Average ^{137}Cs specific activity in the whole group (n = 58): (20.9 ± 1.2) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (30.9 ± 3.0) Bq/kg.

Median value in the whole group: 19.3 Bq/kg.

Median value in the critical group: 25.3 Bq/kg.

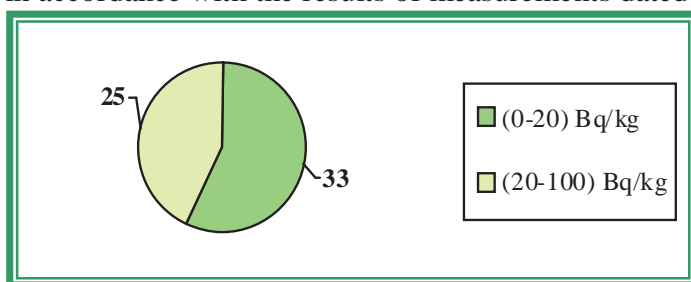
The table 3 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to May 19, 2010.

Table 3

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	B.A.D.	SCHOOLGIRL	F	42	1995	61.8
2.	B.M.L.	SCHOOLGIRL	F	46	1998	49.8
3.	B.E.D.	SCHOOLGIRL	F	49	1997	43.9
4.	F.A.S.	SCHOOLBOY	M	38	1997	31.3
5.	B.R.S.	CHILD PRESCHOOL AGE	M	23	2004	30.7
6.	L.D.N.	SCHOOLBOY	M	26	1999	27.3
7.	S.K.A.	SCHOOLGIRL	F	21	2003	25.6
8.	L.D.V.	CHILD PRESCHOOL AGE	M	20	2005	25.3
9.	Sh.A.V.	SCHOOLGIRL	F	44	1995	25.0
10.	B.A.A.	CHILD PRESCHOOL AGE	M	17	2004	24.4
11.	K.M.N.	CHILD PRESCHOOL AGE	M	16	2006	24.3
12.	S.S.V.	SCHOOLGIRL	F	36	1999	23.8
13.	T.A.V.	SCHOOLGIRL	F	23	2002	23.7
14.	Yu.P.M.	SCHOOLGIRL	F	21	2003	23.6

15.	T.Yu.A.	SCHOOLGIRL	F	24	2002	23.1
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The figure 2 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 19. 2010.



←Figure 2 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 19. 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having passed two WBC measurements (on October 15. 2009 and May 19. 2010). This group consists of 53 children.

October 15. 2009

May 19. 2010

The first measurement of children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 78 persons (58 children and 20 adults).

The second measurement of children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 61 persons (58 children and 3 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (53 children).

Average specific activity of ^{137}Cs :

after the first measurement: (31.3 ± 1.6) Bq/kg,

after the second measurement: (21.2 ± 1.2) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 32%.

Increase of specific activity: in 9% children.

The same level of specific activity: in 15% children.

Reduction of specific activity: in 76% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 53$): $t=7.02$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 29.6 Bq/kg.

Median value after the second measurement: 19.5 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 34%.

The figure 3 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to October 15, 2009 and May 19, 2010.

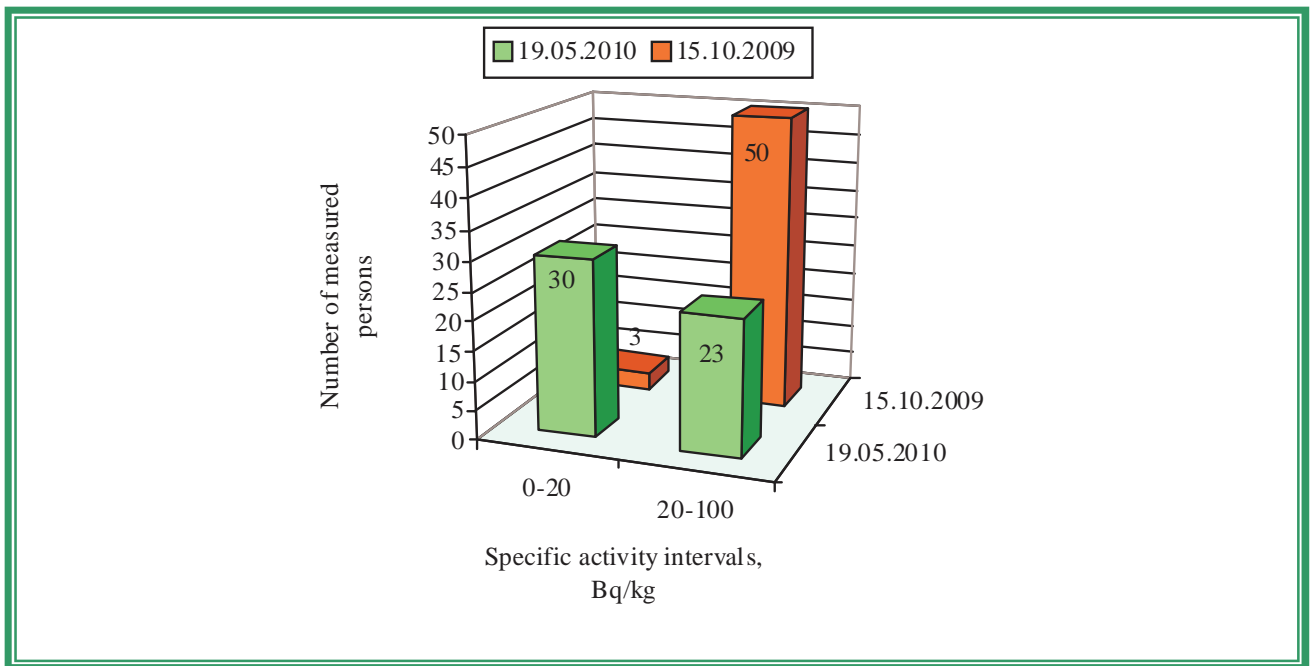


Figure 3 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Buda-Sofiyevka basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to October 15, 2009 and May 19, 2010

BUKCHA

Characteristics	Value	Source
^{137}Cs contamination density of the territory	There are no data	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	752 persons	Bukcha village council, dated to September 2009
External dose	There are no data	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	There are no data	-----«-----
Cumulative dose	There are no data	-----«-----

According to the data dated to September 2009 in the Buda-Sofiyevka secondary school and there are 91 pupils, 24 teachers and 10 persons of another staff; in the kindergarten there are 15 children and 12 persons of another staff.

September 08, 2009

The first measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 105 persons (92 children and 13 adults).

Average ^{137}Cs specific activity in the whole group (n = 92): (24.6 ± 0.8) Bq/kg.

Average specific activity in the critical group (n = 15): (36.7 ± 1.3) Bq/kg.

Median value in the whole group: 23.1 Bq/kg.

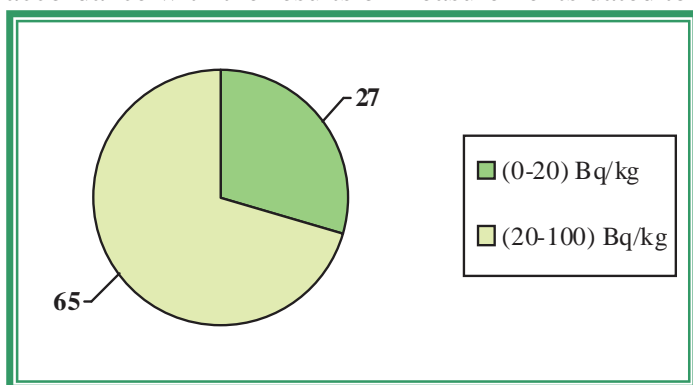
Median value in the critical group: 34.8 Bq/kg.

The table 4 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 08, 2009.

Table 4

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	Yu.S.L.	SCHOOLBOY	M	71	1994	49.4
2.	Ya.V.V.	SCHOOLBOY	M	59	1995	47.4
3.	P.P.V.	SCHOOLBOY	M	29	1999	39.4
4.	T.Yu.L.	SCHOOLGIRL	F	46	1997	38.7
5.	S.A.N.	SCHOOLBOY	M	36	1998	36.9
6.	K.V.V.	SCHOOLBOY	M	34	1998	36.0
7.	K.D.O.	CHILD PRESCHOOL AGE	M	15	2004	35.8
8.	L.V.A.	CHILD PRESCHOOL AGE	M	17	2003	34.8
9.	O.S.Ya.	SCHOOLBOY	M	32	1997	34.5
10.	K.I.N.	SCHOOLGIRL	F	44	1996	33.6
11.	T.A.L.	SCHOOLGIRL	F	26	2001	33.3
12.	Yu.V.M.	SCHOOLBOY	M	27	2001	32.9
13.	G.A.N.	SCHOOLBOY	M	62	1994	32.9
14.	K.Yu.I.	SCHOOLBOY	M	48	1995	32.8
15.	B.I.V.	SCHOOLBOY	M	49	1994	32.5

The figure 4 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009.



←Figure 4 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009

November 10, 2009

The control measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 87 persons (75 children and 12 adults).

Average ^{137}Cs specific activity in the whole group (n = 75): (30.8 ± 0.8) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (41.2 ± 1.3) Bq/kg.

Median value in the whole group: 29.3 Bq/kg.

Median value in the critical group: 38.8 Bq/kg.

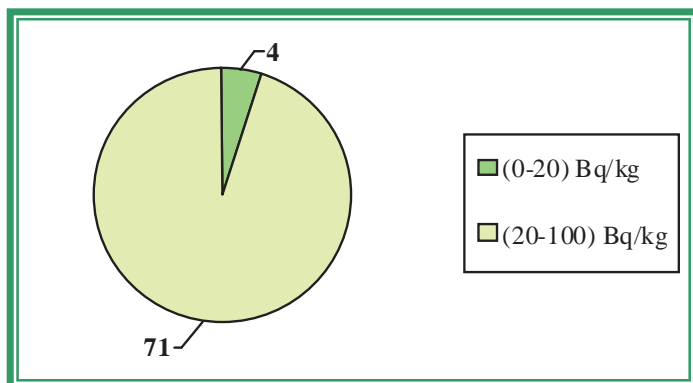
The table 5 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to November 10, 2009.

Table 5

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	B.A.L.	SCHOOLBOY	M	45	1994	54.1
2.	M.A.V.	SCHOOLBOY	M	33	1998	49.2
3.	A.A.V.	CHILD PRESCHOOL AGE	F	16	2006	46.7
4.	A.O.A.	CHILD PRESCHOOL AGE	F	16	2006	42.8
5.	G.A.V.	CHILD PRESCHOOL AGE	M	22	2004	39.7
6.	T.V.N.	SCHOOLBOY	M	25	2002	39.7
7.	S.E.I.	SCHOOLBOY	M	32	1999	39.2

8.	T.A.L.	SCHOOLGIRL	F	27	2001	38.8
9.	T.V.N.	SCHOOLGIRL	F	47	1997	38.7
10.	A.A.A.	CHILD PRESCHOOL AGE	F	16	2005	38.6
11.	L.V.A.	CHILD PRESCHOOL AGE	M	19	2003	38.6
12.	S.P.L.	CHILD PRESCHOOL AGE	M	17	2004	38.5
13.	K.D.O.	CHILD PRESCHOOL AGE	M	16	2004	38.4
14.	A.A.V.	SCHOOLBOY	M	43	1997	37.7
15.	K.V.L.	CHILD PRESCHOOL AGE	M	17	2005	37.4

The figure 5 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 10, 2009.



←Figure 5 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 10, 2009

Hereafter there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having passed two WBC measurements (on September 08, 2010 and November 10, 2010). This group consists of 67 children.

September 08, 2009 November 10, 2009

The first measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 105 persons (92 children and 13 adults).

The control measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 87 persons (75 children and 12 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (67 children).

Average specific activity of ^{137}Cs :

after the first measurement: (24.0 ± 0.9) Bq/kg,

after the second measurement: (30.6 ± 0.8) Bq/kg.

Increase of average specific activity of ^{137}Cs was 28%.

Increase of specific activity: in 68% children.

The same level of specific activity: in 22% children.

Reduction of specific activity: in 10% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 67$): $t=7.70$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 22.9 Bq/kg.

Median value after the second measurement: 29.3 Bq/kg.

Increase of median value of specific activity of ^{137}Cs was 28%.

The figure 6 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and November 10, 2009.

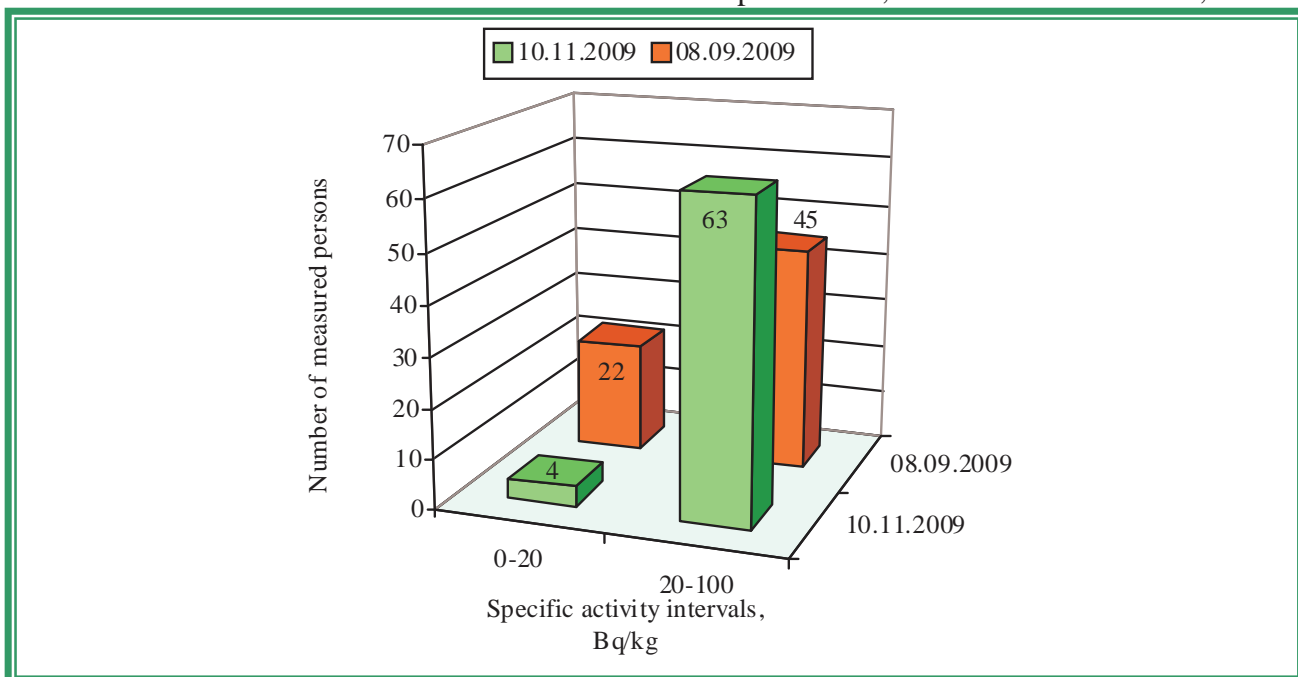


Figure 6 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and November 10, 2009

On February 22, 2010 220 packings of the pectin preparation VITAPECT were given for children.

May 12, 2010

The second measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 86 persons (76 children and 10 adults).

Average ^{137}Cs specific activity in the whole group (n = 76): (24.7 ± 1.0) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (36.6 ± 0.7) Bq/kg.

Median value in the whole group: 23.7 Bq/kg.

Median value in the critical group: 35.2 Bq/kg.

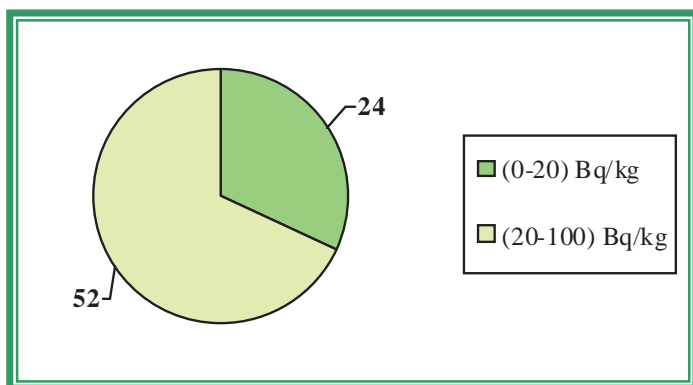
The table 5 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to May 12, 2010.

Table 6

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	S.P.L.	CHILD PRESCHOOL AGE	M	19	2004	41.7
2.	A.D.N.	CHILD PRESCHOOL AGE	M	17	2007	40.7
3.	A.K.A.	CHILD PRESCHOOL AGE	M	18	2007	40.3
4.	A.A.A.	CHILD PRESCHOOL AGE	F	17	2005	40.1
5.	K.I.O.	SCHOOLBOY	M	34	1999	38.4
6.	G.A.V.	CHILD PRESCHOOL AGE	M	23	2004	36.4
7.	A.N.I.	SCHOOLGIRL	F	19	2002	36.2
8.	K.V.L.	CHILD PRESCHOOL AGE	M	18	2005	35.2
9.	M.P.V.	CHILD PRESCHOOL AGE	M	23	2005	35.1
10.	M.A.V.	SCHOOLBOY	M	35	1998	34.9
11.	K.V.V.	SCHOOLBOY	M	37	1998	34.7
12.	Yu.V.M.	SCHOOLBOY	M	29	2000	34.5
13.	L.O.V.	SCHOOLGIRL	F	29	1999	33.7
14.	R.D.V.	SCHOOLBOY	M	40	1997	33.6

15.	Yu.D.N.	SCHOOLBOY	M	29	2002	33.4
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The figure 7 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 12, 2010.



←Figure 7 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 12, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 08, 2009 and May 12, 2010). This group consists of 67 children.

September 08, 2009

May 12, 2010

The first measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 105 persons (92 children and 13 adults).

The second measurement of children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 86 persons (76 children and 10 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (67 children).

Average specific activity of ^{137}Cs :

after the first measurement: (25.1 ± 0.9) Bq/kg,

after the second measurement: (24.5 ± 1.0) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 2%.

Increase of specific activity: in 43% children.

The same level of specific activity: in 16% children.

Reduction of specific activity: in 41% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 67$): $t=0.56$. The received criterion $t < 1.96$; $p > 0.01$.

Median value after the first measurement: 23.4 Bq/kg.

Median value after the second measurement: 23.5 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 0%.

The figure 8 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and May 12, 2010.

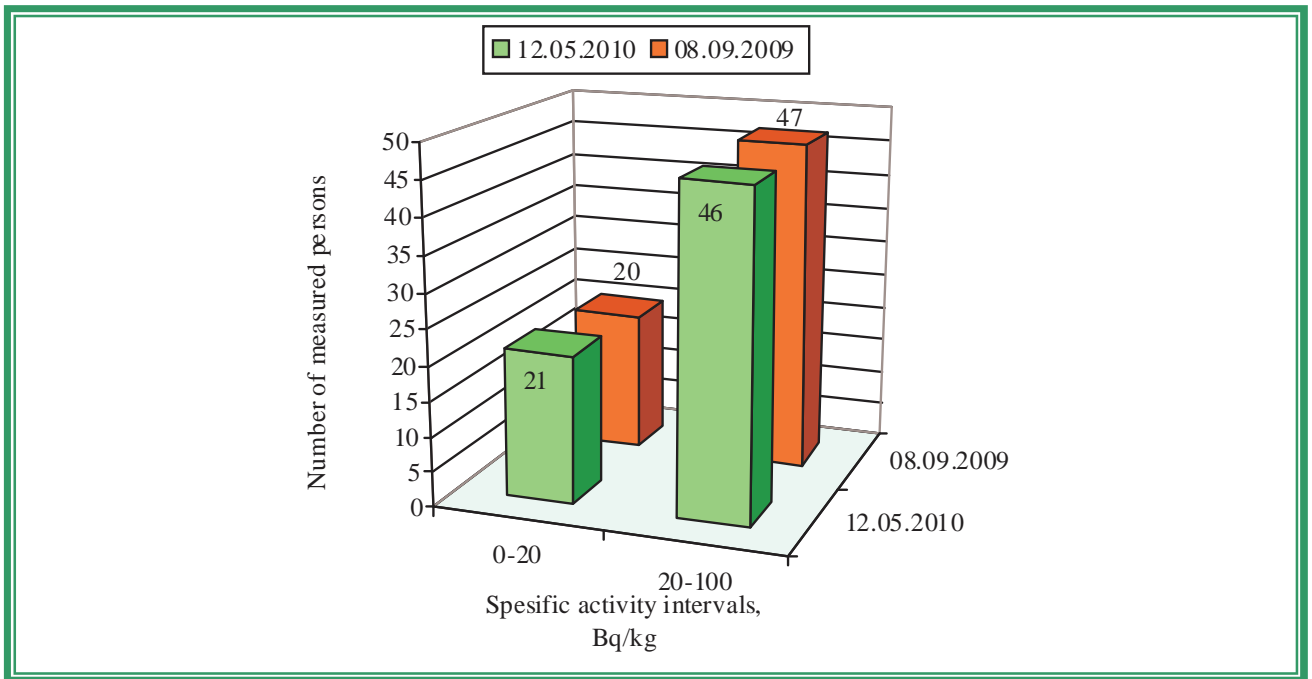


Figure 8 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Bukcha secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and May 12, 2010

GREBENI

Characteristics	Value	Source
^{137}Cs contamination density of the territory	3.54 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	341 persons	Grebeni village council, dated to 01.09.2009
External dose	0.42 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.10 mSv/a	-----«-----
Cumulative dose	1.52 mSv/a	-----«-----

According to the data dated to September 2009 in the Grebeni secondary school there are 53 children, 23 teachers and 12 persons of another staff; in the kindergarten there are 12 children.

September 17, 2009

The first measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 80 persons (56 children and 24 adults).

Average ^{137}Cs specific activity in the whole group (n = 56): (41.9 ± 2.5) Bq/kg.

Average specific activity in the critical group (n = 15): (67.2 ± 4.0) Bq/kg.

Median value in the whole group: 38.2 Bq/kg.

Median value in the critical group: 63.1 Bq/kg.

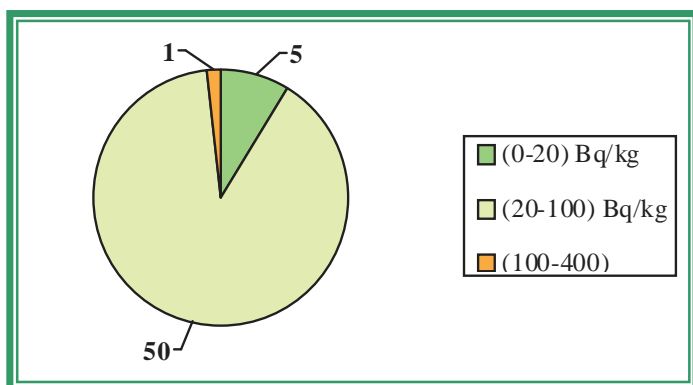
The table 7 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 17, 2009.

Table 7

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	S.V.A.	CHILD PRESCHOOL AGE	F	11	2008	102.6

2.	Sh.A.G.	SCHOOLBOY	M	23	2001	89.6
3.	K.G.V.	SCHOOLGIRL	F	55	1993	86.9
4.	S.D.N.	SCHOOLBOY	M	31	2001	71.5
5.	T.I.S.	SCHOOLGIRL	F	25	2000	70.3
6.	N.A.G.	SCHOOLBOY	M	33	2000	68.2
7.	S.N.V.	SCHOOLGIRL	F	45	1997	68.1
8.	P.M.S.	SCHOOLGIRL	F	25	2000	63.1
9.	H.N.V.	SCHOOLGIRL	F	27	1999	62.8
10.	L.V.S.	SCHOOLGIRL	F	18	2002	58.8
11.	Yu.V.N.	CHILD PRESCHOOL AGE	M	15	2006	58.2
12.	L.E.N.	SCHOOLGIRL	F	39	1998	54.0
13.	T.V.L.	SCHOOLBOY	M	81	1996	51.6
14.	K.S.D.	SCHOOLBOY	M	41	1995	51.5
15.	S.V.V.	CHILD PRESCHOOL AGE	F	21	2003	51.1

The figure 9 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 17, 2009.



←Figure 9 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 17, 2009

November 11, 2009

The control measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 65 persons (49 children and 16 adults).

Average ^{137}Cs specific activity in the whole group (n = 49): (42.2 ± 2.9) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (68.1 ± 3.6) Bq/kg.

Median value in the whole group: 36.6 Bq/kg.

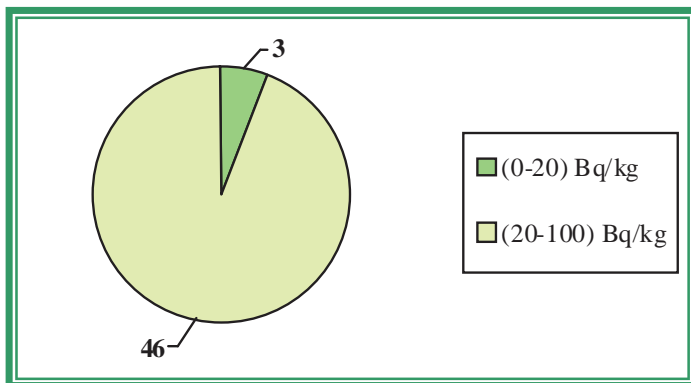
Median value in the critical group: 69.4 Bq/kg.

The table 1 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to November 11, 2009.

Table 1

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	M.S.A.	SCHOOLBOY	M	73	1994	95.4
2.	L.V.S.	SCHOOLGIRL	F	18	2002	87.6
3.	H.V.P.	SCHOOLBOY	M	42	1998	80.3
4.	Sh.A.G.	SCHOOLBOY	M	26	2001	78.7
5.	S.O.N.	SCHOOLGIRL	F	49	1993	77.2
6.	S.N.V.	SCHOOLGIRL	F	47	1997	71.1
7.	L.A.S.	SCHOOLBOY	M	33	1999	70.8
8.	T.V.L.	SCHOOLBOY	M	82	1996	69.4
9.	S.R.N.	SCHOOLBOY	M	64	1994	61.3
10.	K.G.V.	SCHOOLGIRL	F	58	1993	60.5
11.	S.E.N.	SCHOOLGIRL	F	46	1995	58.6
12.	C.D.P.	CHILD PRESCHOOL AGE	M	16	2005	56.2
13.	Sh.P.G.	SCHOOLBOY	M	60	1997	55.1
14.	T.I.S.	SCHOOLGIRL	F	27	2000	50.3
15.	T.M.L.	CHILD PRESCHOOL AGE	F	16	2006	48.3

The figure 10 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 11, 2009.



←Figure 10 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 11, 2009

Hereafter there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having passed two WBC measurements (on September 17, 2009 and November 11, 2009). This group consists of 43 children.

September 17, 2009

November 11, 2009

The first measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 80 persons (56 children and 24 adults).

The control measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 65 persons (49 children and 16 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (43 children).

Average specific activity of ^{137}Cs :

after the first measurement: (41.0 ± 2.6) Bq/kg,

after the second measurement: (41.4 ± 2.8) Bq/kg.

Increase of average specific activity of ^{137}Cs was 1%.

Increase of specific activity: in 37% children.

The same level of specific activity: in 19% children.

Reduction of specific activity: in 44% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 43$): $t=0.15$. The received criterion $t < 1.96$; $p > 0.01$.

Median value after the first measurement: 73.4 Bq/kg.

Median value after the second measurement: 36.5 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 2%.

The figure 11 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 17, 2009 and November 11, 2009.

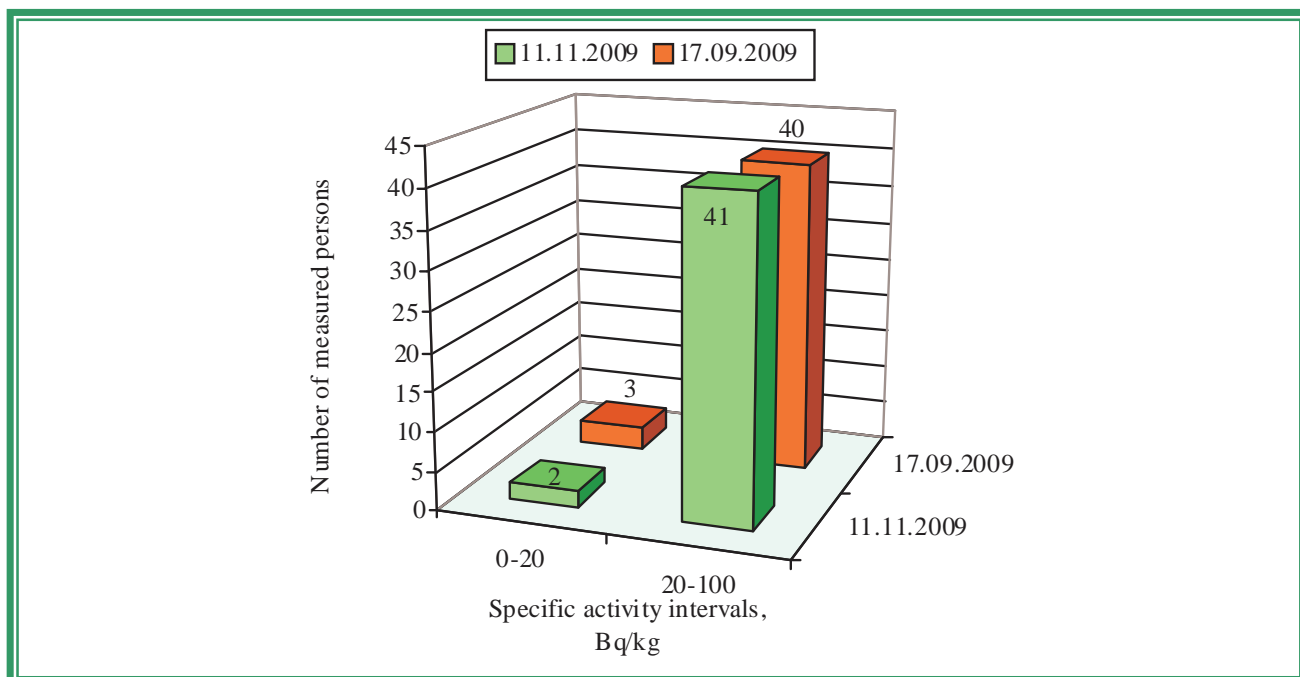


Figure 11 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 17, 2009 and November 11, 2009

On February 22, 2010 140 packings of the pectin preparation VITAPECT were given for children.

March 23, 2010

The second measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 80 persons (62 children and 18 adults).

Average ^{137}Cs specific activity in the whole group (n = 62): (41.8 ± 9.5) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (113.0 ± 33.8) Bq/kg.

Median value in the whole group: 22.2 Bq/kg.

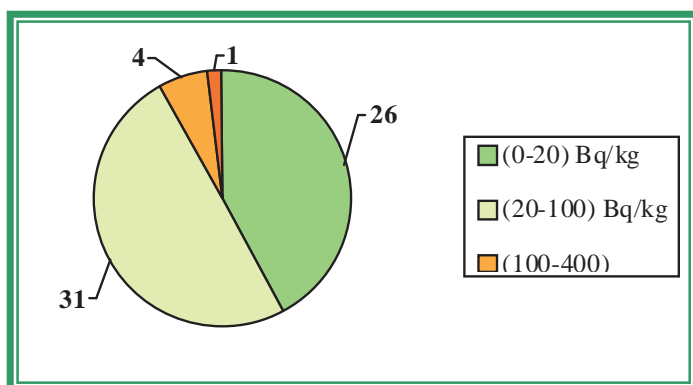
Median value in the critical group: 48.9 Bq/kg.

The table 8 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 23, 2010.

Table 8

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	T.V.L.	SCHOOLBOY	M	87	1996	496.0
2.	T.E.L.	SCHOOLBOY	M	33	2000	264.9
3.	T.M.L.	CHILD PRESCHOOL AGE	F	16	2006	262.7
4.	S.S.A.	SCHOOLBOY	M	62	1993	122.3
5.	K.G.V.	SCHOOLGIRL	F	59	1993	101.7
6.	H.N.V.	SCHOOLGIRL	F	30	1999	58.2
7.	H.V.V.	SCHOOLBOY	M	36	1997	54.9
8.	L.N.S.	CHILD PRESCHOOL AGE	F	14	2007	48.9
9.	S.S.A.	CHILD PRESCHOOL AGE	F	15	2007	48.6
10.	K.A.V.	CHILD PRESCHOOL AGE	M	17	2007	45.1
11.	C.D.P.	CHILD PRESCHOOL AGE	M	17	2005	42.9
12.	B.V.A.	CHILD PRESCHOOL AGE	F	23	2004	39.6
13.	K.V.S.	SCHOOLGIRL	F	25	2002	38.6
14.	Sh.D.D.	CHILD PRESCHOOL AGE	F	14	2006	35.7
15.	L.V.S.	SCHOOLGIRL	F	19	2002	34.9

The figure 12 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 23, 2010.



←Figure 12 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 23, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on November 11, 2009 and March 23, 2010). This group consists of 44 children.

November 11, 2009 March 23, 2010

The control measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 65 persons (49 children and 16 adults)

The second measurement of children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 80 persons (62 children and 18 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (44 children).

Average specific activity of ^{137}Cs :

after the first measurement: (43.3 ± 3.2) Bq/kg,

after the second measurement: (44.9 ± 13.2) Bq/kg.

Increase of average specific activity of ^{137}Cs was 4%.

Increase of specific activity: in 11% children.

The same level of specific activity: in 16% children.

Reduction of specific activity: in 73% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 53$): $t=1.09$. The received criterion $t < 1.96$; $p > 0.01$.

Median value after the first measurement: 37.4 Bq/kg.

Median value after the second measurement: 20.4 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 45%.

The figure 13 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 11, 2009 and March 23, 2010.

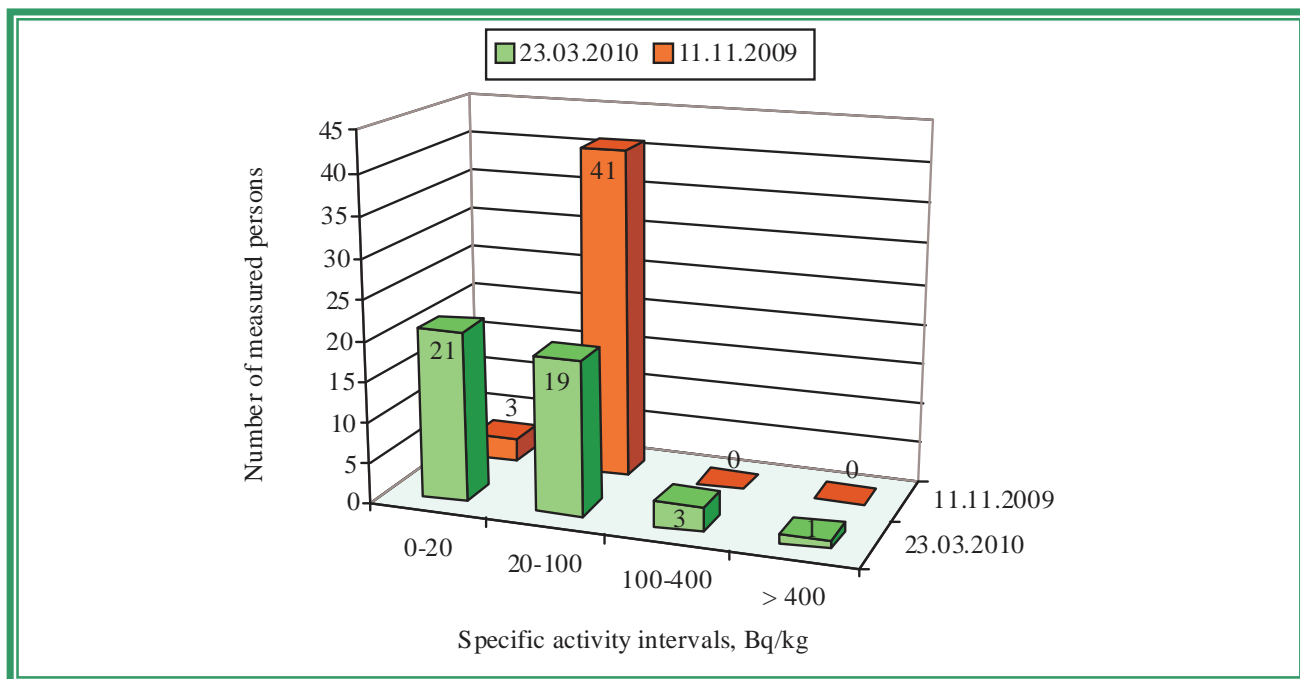


Figure 13 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Grebeni secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to November 11, 2009 and March 23, 2010

DUBROVA

Characteristics	Value	Source
^{137}Cs contamination density of the territory	1.51 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	742 persons	Dubrova village council, dated to September 2009
External dose	0.18 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.60 mSv/a	-----<-----
Cumulative dose	0.78 mSv/a	-----<-----

According to the data dated to September 2009 in the Dubrova secondary school there are 107 children; in the kindergarten there are 21 children, 24 teachers and 23 persons of other staff.

Children from following settlements go to the Dubrova secondary school and kindergarten: Dubrova and Dubnitskoye.

September 08, 2009

The first measurement of children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 137 persons (114 children and 23 adults).

Average ^{137}Cs specific activity in the whole group (n = 114): (39.8 ± 1.1) Bq/kg.

Average specific activity in the critical group (n = 15): (59.4 ± 2.7) Bq/kg.

Median value in the whole group: 39.4 Bq/kg.

Median value in the critical group: 55.1 Bq/kg.

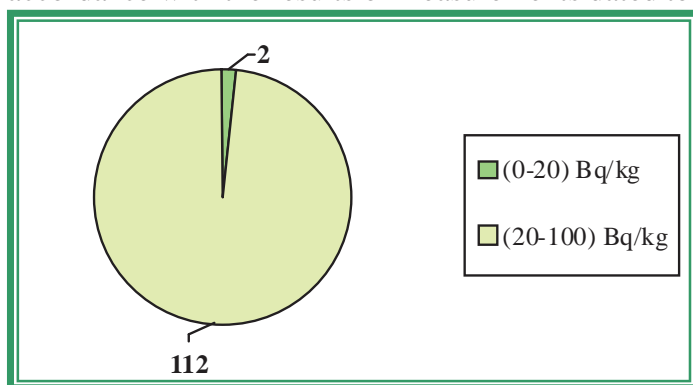
The table 9 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 08, 2009.

Table 9

No.	Surname Name	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
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	Patronymic					
1.	Sh.A.S.	SCHOOLGIRL	F	43	1996	84.8
2.	K.I.V.	SCHOOLBOY	M	54	1995	78.9
3.	L.M.I.	SCHOOLGIRL	F	29	1999	73.5
4.	L.M.A.	SCHOOLGIRL	F	55	1994	58.6
5.	S.A.V.	SCHOOLGIRL	F	38	1997	58.0
6.	L.A.V.	SCHOOLBOY	M	41	1997	57.3
7.	J.A.N.	SCHOOLBOY	M	31	1998	55.7
8.	L.K.A.	SCHOOLBOY	M	27	2000	55.1
9.	N.M.S.	SCHOOLGIRL	F	50	1993	54.5
10.	L.D.N.	SCHOOLGIRL	F	20	2002	53.3
11.	Sh.I.A.	SCHOOLBOY	F	35	1997	53.0
12.	K.A.P.	SCHOOLBOY	M	25	2001	52.7
13.	L.A.I.	SCHOOLGIRL	F	24	2001	52.3
14.	Sh.V.V.	SCHOOLBOY	M	50	1996	52.0
15.	A.D.A.	SCHOOLBOY	M	52	1996	51.0

The figure 14 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009.



←Figure 14 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009

On February 22, 2010 266 packings of the pectin preparation VITAPECT were given for children.

March 16, 2010

The second measurement of children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 128 persons (111 children and 17 adults).

Average ^{137}Cs specific activity in the whole group (n = 111): (20.4 ± 1.0) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (38.5 ± 1.6) Bq/kg.

Median value in the whole group: 19.2 Bq/kg.

Median value in the critical group: 37.4 Bq/kg.

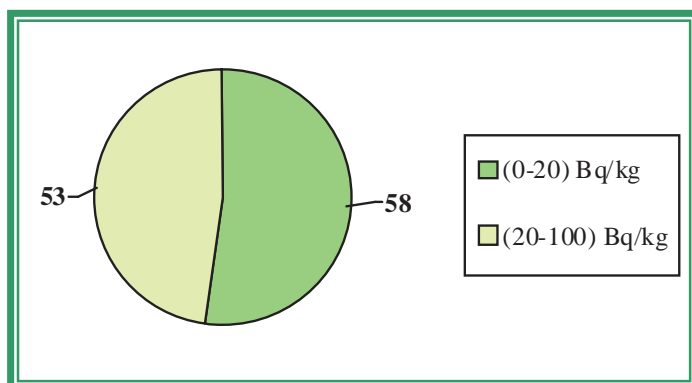
The table 10 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 16, 2010.

Table 10

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	K.I.V.	SCHOOLBOY	M	60	1995	51.2
2.	L.S.I.	CHILD PRESCHOOL AGE	F	14	2005	45.2
3.	A.I.M.	CHILD PRESCHOOL AGE	F	15	2007	44.4
4.	S.A.V.	CHILD PRESCHOOL AGE	F	17	2004	44.2
5.	Sh.V.A.	CHILD PRESCHOOL AGE	F	19	2004	43.2
6.	J.M.A.	CHILD PRESCHOOL AGE	F	17	2005	40.5
7.	Sh.E.V.	CHILD PRESCHOOL AGE	F	20	2004	38.5
8.	K.V.V.	SCHOOLBOY	M	18	2003	37.4
9.	L.A.I.	SCHOOLGIRL	F	26	2001	37.1

10.	S.M.N.	SCHOOLGIRL	F	38	2000	36.9
11.	A.I.V.	CHILD PRESCHOOL AGE	M	18	2004	32.9
12.	B.A.I.	CHILD PRESCHOOL AGE	M	25	2004	32.3
13.	S.A.F.	SCHOOLBOY	M	23	2002	32.0
14.	P.V.A.	SCHOOLBOY	M	25	2002	31.8
15.	P.A.A.	CHILD PRESCHOOL AGE	F	16	2004	30.5

The figure 15 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 16, 2010.



←Figure 15 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 16, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 08, 2009 and March 16, 2010). This group consists of 96 children.

September 08, 2009 March 16, 2010

The first measurement of children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 137 persons (114 children and 23 adults).

The second measurement of children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 128 persons (111 children and 17 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (96 children).

Average specific activity of ^{137}Cs :

after the first measurement: (39.2 ± 1.2) Bq/kg,

after the second measurement: (20.0 ± 1.1) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 49%.

Increase of specific activity: in 4% children.

The same level of specific activity: in 6% children.

Reduction of specific activity: in 90% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 96$): $t=17.20$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 38.1 Bq/kg.

Median value after the second measurement: 18.1 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 53%.

The figure 16 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and March 16, 2010.

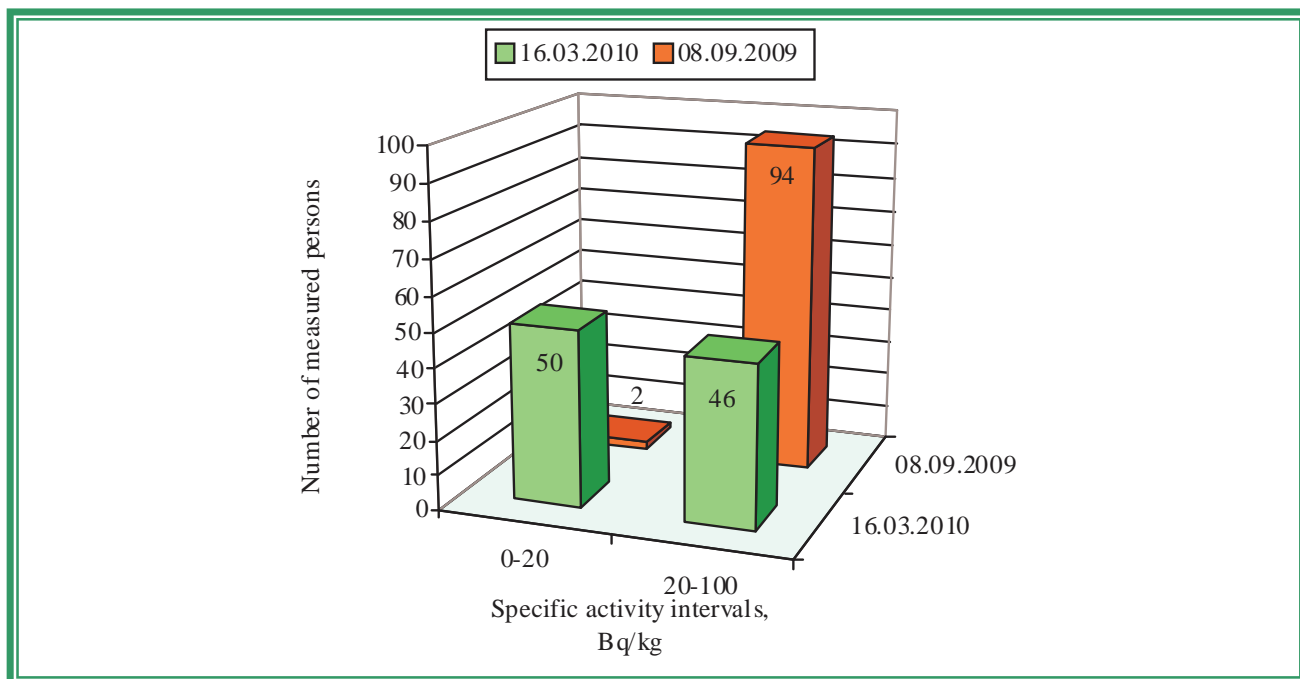


Figure 16 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Dubrova secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 08, 2009 and March 16, 2010

KRASNOBEREZHYE

Characteristics	Value	Source
^{137}Cs contamination density of the territory	2.28 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	340 persons	Udarnoye village council, dated to 10.09.2009
External dose	0.27 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.70 mSv/a	-----<-----
Cumulative dose	0.97 mSv/a	-----<-----

According to the data dated to September 2009 in the Krasnoberezhnye basic school there are 47 pupils, 16 teachers and 6 persons of other staff; in the kindergarten “Rucheyok” there are 15 children, 10 persons of other staff.

September 10, 2009

The first measurement of children in the Krasnoberezhnye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 69 persons (55 children and 14 adults).

Average ^{137}Cs specific activity in the whole group (n = 55): (49.3 ± 3.8) Bq/kg.

Average specific activity in the critical group (n = 15): (84.7 ± 8.2) Bq/kg.

Median value in the whole group: 40.7 Bq/kg.

Median value in the critical group: 72.5 Bq/kg.

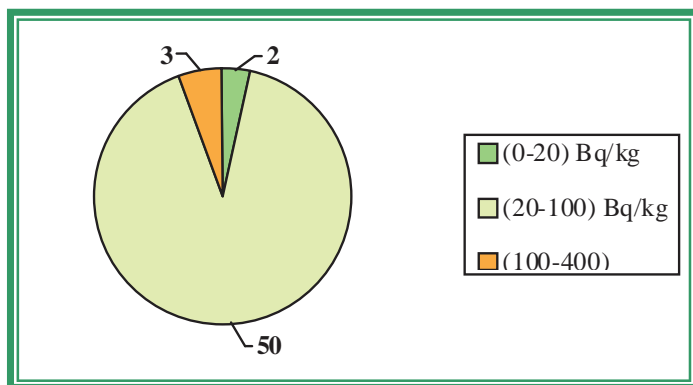
The table 11 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 10, 2009.

Table 11

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	Yu.L.S.	SCHOOLGIRL	F	44	1997	158.4

2.	N.E.N.	SCHOOLGIRL	F	61	1997	140.7
3.	Yu.V.S.	SCHOOLGIRL	F	24	2001	120.3
4.	N.M.P.	SCHOOLBOY	M	39	1998	96.1
5.	N.N.P.	SCHOOLBOY	M	40	1996	88.6
6.	N.A.N.	SCHOOLBOY	M	24	2002	81.1
7.	Ya.K.N.	CHILD PRESCHOOL AGE	F	18	2004	76.9
8.	Sh.S.V.	SCHOOLBOY	M	29	1999	72.5
9.	M.A.N.	SCHOOLGIRL	F	36	1997	70.0
10.	M.V.N.	SCHOOLBOY	M	41	1996	69.9
11.	L.I.N.	SCHOOLGIRL	F	33	1995	64.4
12.	N.S.P.	SCHOOLBOY	M	36	2000	61.0
13.	B.I.Yu.	SCHOOLBOY	M	39	1999	59.2
14.	S.D.V.	SCHOOLBOY	M	28	1999	57.9
15.	V.S.R.	SCHOOLGIRL	F	22	2002	53.5

The figure 17 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009.



←Figure 17 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009

On February 22, 2010 130 packings of the pectin preparation VITAPECT were given for children.

March 25, 2010

The second measurement of children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 78 persons (59 children and 19 adults).

Average ^{137}Cs specific activity in the whole group (n = 55): (49.3 ± 3.8) Bq/kg.

Average specific activity in the critical group (n = 15): (84.7 ± 8.2) Bq/kg.

Median value in the whole group: 40.7 Bq/kg.

Median value in the critical group: 72.5 Bq/kg.

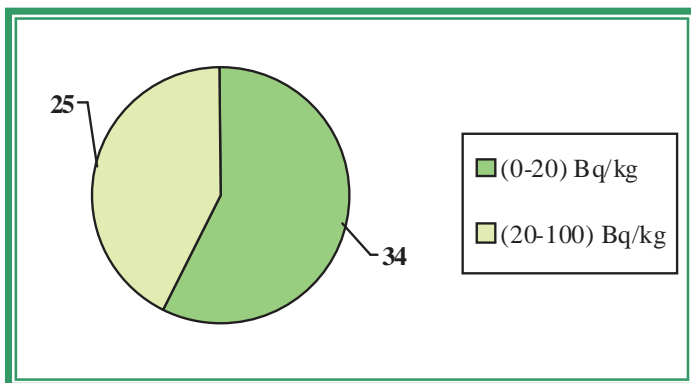
The table 12 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 25, 2010.

Table 12

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	N.N.P.	SCHOOLBOY	M	43	1996	54.5
2.	N.M.P.	SCHOOLBOY	M	41	1998	48.9
3.	N.S.P.	SCHOOLBOY	M	40	2000	38.8
4.	B.O.Yu.	SCHOOLGIRL	F	48	1996	35.2
5.	D.Ya.D.	CHILD PRESCHOOL AGE	F	13	2006	35.0
6.	Z.A.N.	CHILD PRESCHOOL AGE	F	16	2005	32.8
7.	T.A.S.	CHILD PRESCHOOL AGE	M	16	2005	32.4
8.	G.D.N.	CHILD PRESCHOOL AGE	F	20	2004	30.2
9.	T.A.M.	CHILD PRESCHOOL AGE	M	16	2006	29.1
10.	B.K.Yu.	CHILD PRESCHOOL AGE	M	19	2005	28.8
11.	S.E.M.	CHILD PRESCHOOL AGE	F	16	2004	28.4
12.	B.I.Yu.	SCHOOLBOY	M	43	1998	27.7

13.	R.I.A.	CHILD PRESCHOOL AGE	F	16	2006	27.3
14.	H.V.F.	CHILD PRESCHOOL AGE	F	21	2004	25.9
15.	B.M.V.	SCHOOLGIRL	F	44	1996	23.9

The figure 18 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 25, 2010.



←Figure 18 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 25, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 10, 2009 and March 25, 2010). This group consists of 47 children.

September 10, 2009 March 25, 2010

The first measurement of children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 69 persons (55 children and 14 adults).

The second measurement of children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 78 persons (59 children and 19 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (47 children).

Average specific activity of ^{137}Cs :

after the first measurement: (50.6 ± 4.3) Bq/kg,

after the second measurement: (19.8 ± 1.5) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 61%.

Increase of specific activity: in 0% children.

The same level of specific activity: in 0% children.

Reduction of specific activity: in 100% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 47$): $t=9.52$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 41.1 Bq/kg.

Median value after the second measurement: 18.1 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 56%.

The figure 19 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009 and March 25, 2010.

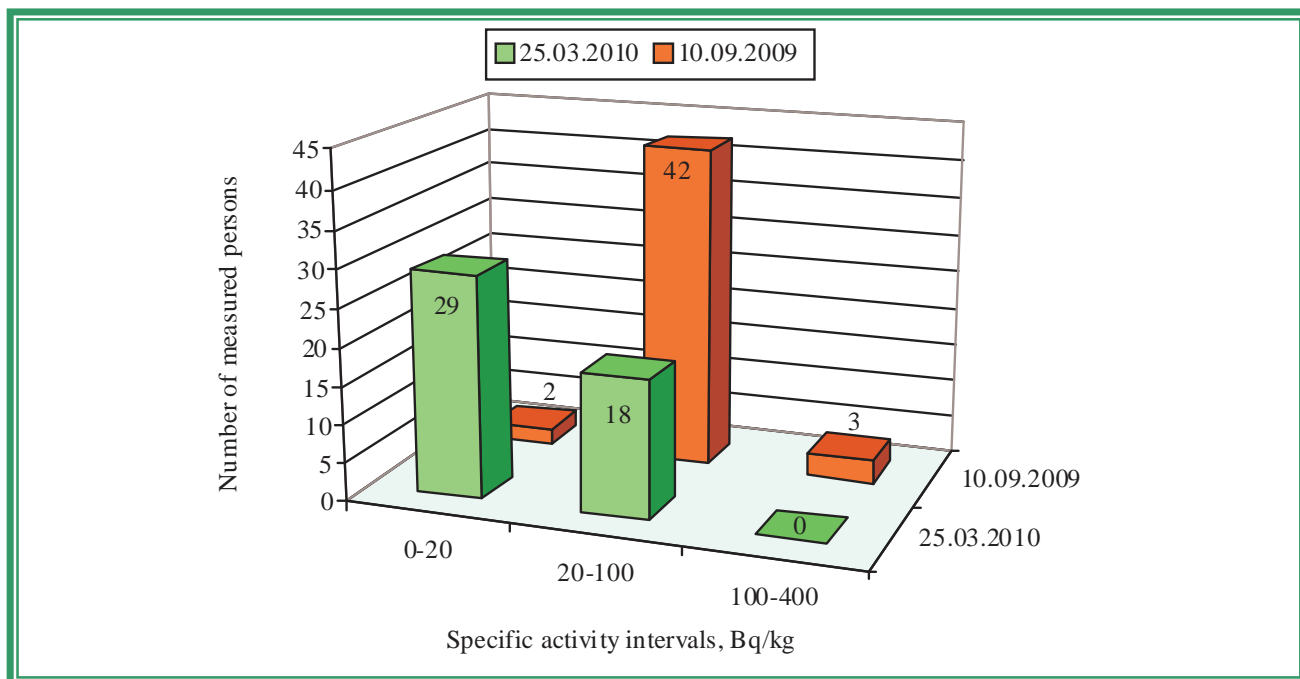


Figure 19 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Krasnoberezhnye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009 and March 25, 2010

MARKOVSKOYE

Characteristics	Value	Source
^{137}Cs contamination density of the territory	2.18 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	383 persons	Borovoye village council, dated to 11.09.2009
External dose	0.26 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.40 mSv/a	-----«-----
Cumulative dose	0.66 mSv/a	-----«-----

According to the data dated to September 2009 in the Markovskoye basic school there are 50 pupils, 18 teachers and 8 persons of other staff; in the kindergarten there are 7 children, 10 persons of other staff.

September 11, 2009

The first measurement of children in the Krasnoberezhnye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 66 persons (49 children and 17 adults).

Average ^{137}Cs specific activity in the whole group (n = 49): (48.8 ± 2.5) Bq/kg.

Average specific activity in the critical group (n = 15): (69.2 ± 4.0) Bq/kg.

Median value in the whole group: 44.7 Bq/kg.

Median value in the critical group: 67.8 Bq/kg.

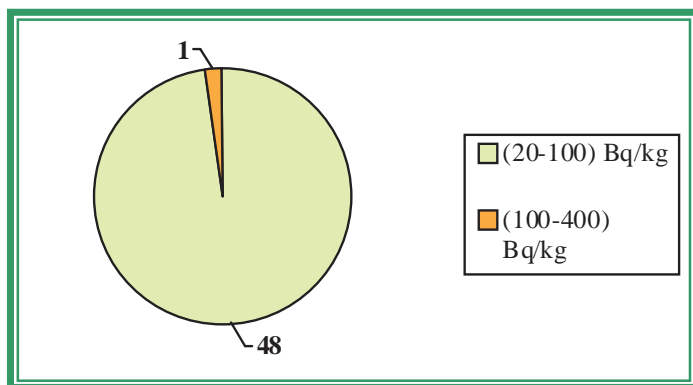
The table 13 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 11, 2010.

Table 13

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	A.K.S.	SCHOOLGIRL	F	27	2000	111.6

2.	D.I.I.	SCHOOLGIRL	F	28	2001	94.4
3.	A.A.A.	CHILD PRESCHOOL AGE	F	18	2004	75.4
4.	Sh.D.V.	SCHOOLBOY	M	34	1998	75.1
5.	D.N.I.	CHILD PRESCHOOL AGE	F	23	2003	70.1
6.	N.A.Yu.	SCHOOLBOY	M	63	1996	68.2
7.	N.M.A.	SCHOOLBOY	M	32	1998	68.0
8.	Sh.V.V.	SCHOOLBOY	M	25	2001	67.8
9.	J.A.S.	SCHOOLBOY	M	16	1994	62.7
10.	F.T.N.	CHILD PRESCHOOL AGE	F	17	2004	60.1
11.	S.T.I.	CHILD PRESCHOOL AGE	F	20	2003	59.9
12.	T.D.S.	CHILD PRESCHOOL AGE	F	15	2006	58.5
13.	K.I.S.	CHILD PRESCHOOL AGE	M	20	2003	57.2
14.	S.A.V.	SCHOOLBOY	M	26	2001	55.6
15.	N.A.V.	SCHOOLGIRL	F	22	2001	53.7

The figure 20 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009.



←Figure 20 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009

On February 22, 2010 120 packings of the pectin preparation VITAPECT were given for children.

May 14, 2010

The **second** measurement of children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 91 persons (64 children and 27 adults).

Average ^{137}Cs specific activity in the whole group (n = 64): (28.2 ± 3.4) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (48.1 ± 13.4) Bq/kg.

Median value in the whole group: 25.6 Bq/kg.

Median value in the critical group: 33.0 Bq/kg.

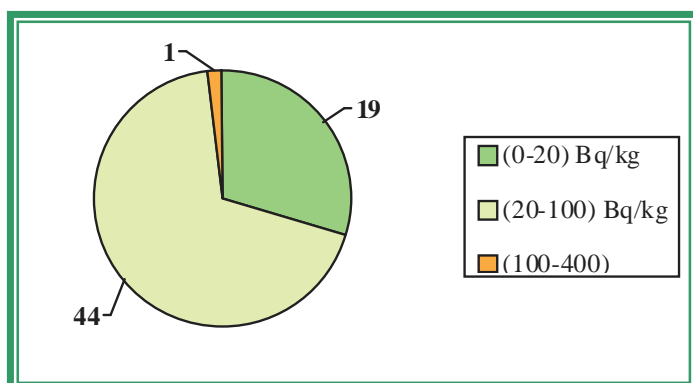
The table 14 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to May 14, 2010.

Table 14

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	N.M.A.	SCHOOLBOY	M	35	1998	235.5
2.	Ya.M.A.	CHILD PRESCHOOL AGE	M	17	2005	40.9
3.	N.D.R.	CHILD PRESCHOOL AGE	M	13	2007	40.1
4.	H.E.A.	CHILD PRESCHOOL AGE	M	12	2006	39.5
5.	B.T.A.	CHILD PRESCHOOL AGE	M	17	2006	37.9
6.	D.V.A.	SCHOOLBOY	M	20	2003	35.9
7.	M.V.A.	SCHOOLGIRL	F	20	2002	33.3
8.	S.T.I.	SCHOOLGIRL	F	21	2003	33.0
9.	D.G.N.	SCHOOLGIRL	F	26	2002	32.9
10.	Ya.K.A.	CHILD PRESCHOOL AGE	M	13	2007	32.5
11.	D.I.I.	SCHOOLGIRL	F	30	2001	32.4
12.	Sh.V.V.	SCHOOLBOY	M	29	2001	32.4

13.	B.D.A.	SCHOOLGIRL	F	17	2003	32.2
14.	A.A.A.	CHILD PRESCHOOL AGE	F	20	2004	31.8
15.	T.D.V.	SCHOOLBOY	M	25	2003	31.8

The figure 21 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 14, 2010.



←Figure 21 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to May 14, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 11, 2009 and May 14, 2010). This group consists of 43 children.

September 11, 2009 May 14, 2010

The first measurement of children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 66 persons (49 children and 17 adults).

The second measurement of children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 91 persons (64 children and 27 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (43 children).

Average specific activity of ^{137}Cs :

after the first measurement: (48.4 ± 2.7) Bq/kg,

after the second measurement: (28.6 ± 5.0) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 41%.

Decrease of specific activity: in 2% children.

The same level of specific activity: in 7% children.

Reduction of specific activity: in 91% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 43$): $t=4.91$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 44.7 Bq/kg.

Median value after the second measurement: 25.0 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 44%.

The figure 22 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009 and May 14, 2010.

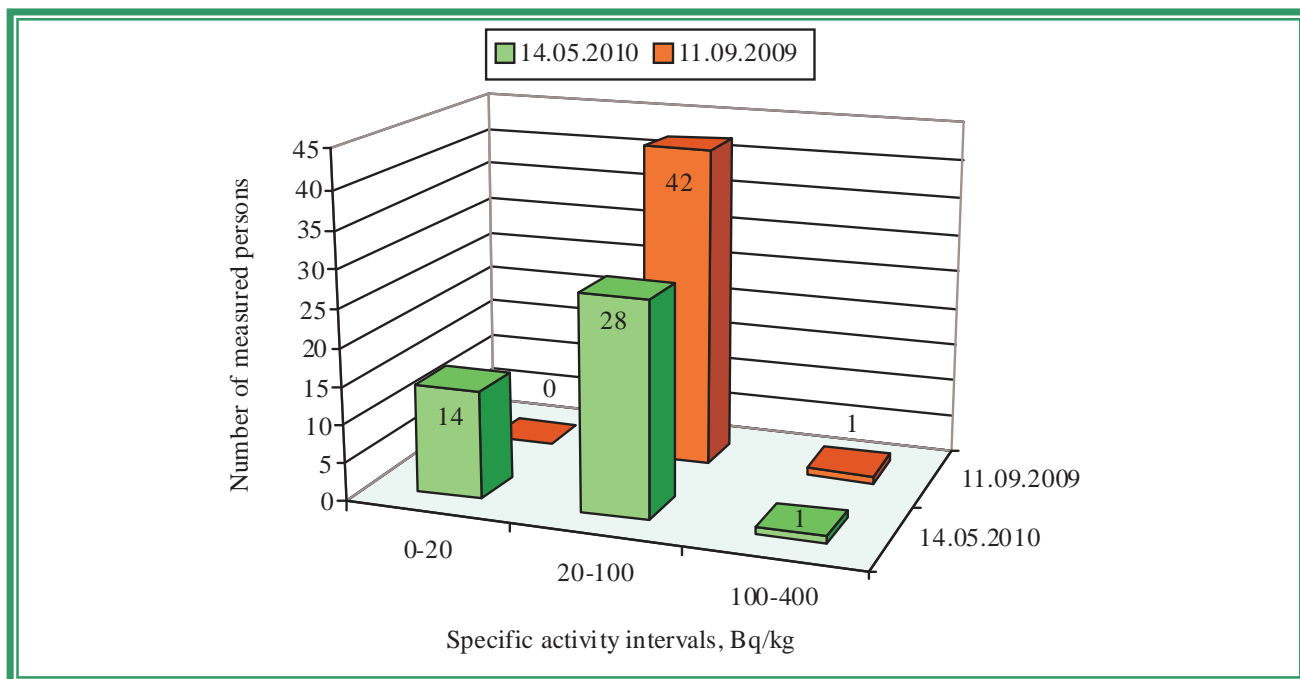


Figure 22 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Markovskoye basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009 and May 14, 2010

SIMONICHI

Characteristics	Value	Source
^{137}Cs contamination density of the territory	1.23 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	821 persons	Simonichi village council, dated to September 2009
External dose	0.15 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.90 mSv/a	-----«-----
Cumulative dose	1.05 mSv/a	-----«-----

According to the data dated to September 2009 in the Simonichi secondary school there are 132 children, 26 teachers and 14 persons of other staff; in the kindergarten there are 30 children and 14 persons of other staff.

Children from following settlements go to the Simonichi secondary school and kindergarten: Simonichi, Simonechsky Mlynok and Sloboda.

September 09, 2009

The first measurement of children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 160 persons (133 children and 27 adults).

Average ^{137}Cs specific activity in the whole group (n = 133): (39.3 ± 2.2) Bq/kg.

Average specific activity in the critical group (n = 15): (86.8 ± 11.3) Bq/kg.

Median value in the whole group: 34.3 Bq/kg.

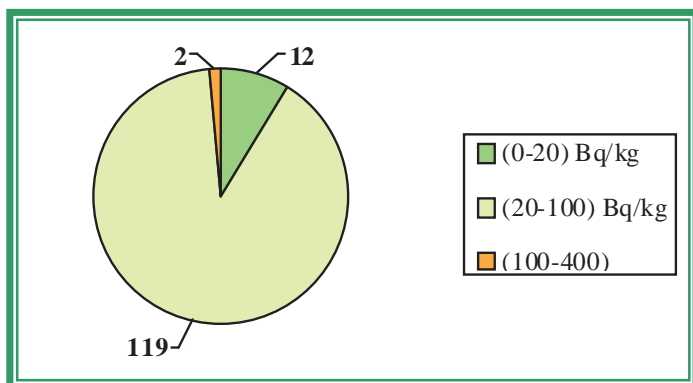
Median value in the critical group: 70.0 Bq/kg.

The table 15 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 09, 2009.

Table 15

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	C.V.M.	SCHOOLGIRL	F	52	1996	207.6
2.	V.A.N.	SCHOOLBOY	M	24	2002	177.3
3.	V.Yu.V.	SCHOOLGIRL	F	38	1997	85.3
4.	V.V.N.	SCHOOLGIRL	F	46	1998	82.0
5.	V.Ya.V.	SCHOOLGIRL	F	45	1999	76.1
6.	K.D.S.	SCHOOLGIRL	F	27	2002	74.1
7.	K.A.I.	SCHOOLBOY	M	38	1997	74.0
8.	V.D.K.	SCHOOLBOY	M	35	1999	70.0
9.	K.A.V.	SCHOOLGIRL	F	46	1999	69.4
10.	K.S.S.	SCHOOLGIRL	F	38	1995	68.5
11.	V.S.A.	SCHOOLGIRL	F	36	1996	66.8
12.	F.M.V.	SCHOOLBOY	M	38	1998	63.1
13.	V.V.K.	SCHOOLGIRL	F	38	1997	63.0
14.	H.L.I.	SCHOOLGIRL	F	54	1994	62.8
15.	M.P.I.	SCHOOLBOY	M	58	1994	61.9

The figure 23 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009.



←Figure 23 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009

On February 22, 2010 324 packings of the pectin preparation VITAPECT were given for children.

March 17, 2010

The second measurement of children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 156 persons (133 children and 23 adults).

Average ^{137}Cs specific activity in the whole group (n = 133): (22.9 ± 1.8) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (56.4 ± 12.6) Bq/kg.

Median value in the whole group: 19.3 Bq/kg.

Median value in the critical group: 42.8 Bq/kg.

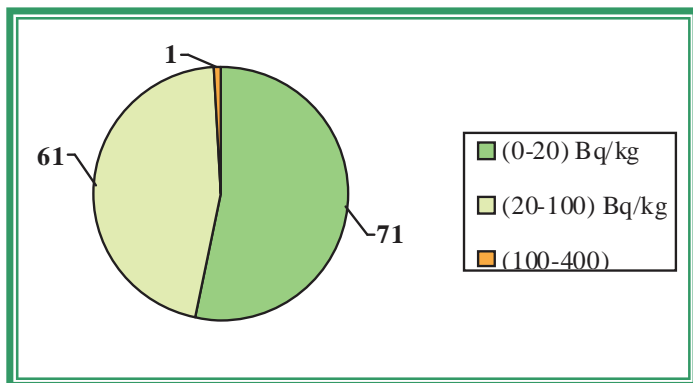
The table 16 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 17, 2010.

Table 16

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	C.V.M.	SCHOOLGIRL	F	56	1996	229.2
2.	F.N.S.	SCHOOLGIRL	F	29	1998	67.2
3.	F.N.I.	SCHOOLBOY	M	24	2001	59.7
4.	F.L.I.	SCHOOLGIRL	F	35	2000	51.2
5.	D.E.P.	CHILD PRESCHOOL AGE	M	14	2006	48.6
6.	J.R.A.	CHILD PRESCHOOL AGE	M	23	2004	46.0
7.	F.K.N.	CHILD PRESCHOOL AGE	F	19	2006	42.8
8.	F.Yu.L.	CHILD PRESCHOOL AGE	M	14	2005	42.8

9.	P.K.M.	CHILD PRESCHOOL AGE	F	17	2006	42.0
10.	H.I.N.	SCHOOLGIRL	F	44	1998	41.1
11.	E.E.N.	SCHOOLGIRL	F	20	2003	36.5
12.	F.N.I.	SCHOOLBOY	M	23	2003	35.7
13.	V.Yu.V.	SCHOOLGIRL	F	44	1997	35.3
14.	R.V.I.	SCHOOLBOY	M	22	2001	34.3
15.	B.Yu.A.	SCHOOLBOY	M	27	2000	33.3

The figure 24 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 17, 2010.



←Figure 24 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 17, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 09, 2009 and March 17, 2010). This group consists of 116 children.

September 09, 2009

March 17, 2010

The first measurement of children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 160 persons (133 children and 27 adults).

The second measurement of children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 156 persons (133 children and 23 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (116 children).

Average specific activity of ^{137}Cs :

after the first measurement: (38.9 ± 2.4) Bq/kg,

after the second measurement: (23.5 ± 2.0) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 40%.

Increase of specific activity: in 19% children.

The same level of specific activity: in 7% children.

Reduction of specific activity: in 74% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 116$): $t=6.92$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 34.3 Bq/kg.

Median value after the second measurement: 19.8 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 42%.

The figure 25 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009 and March 17, 2010.

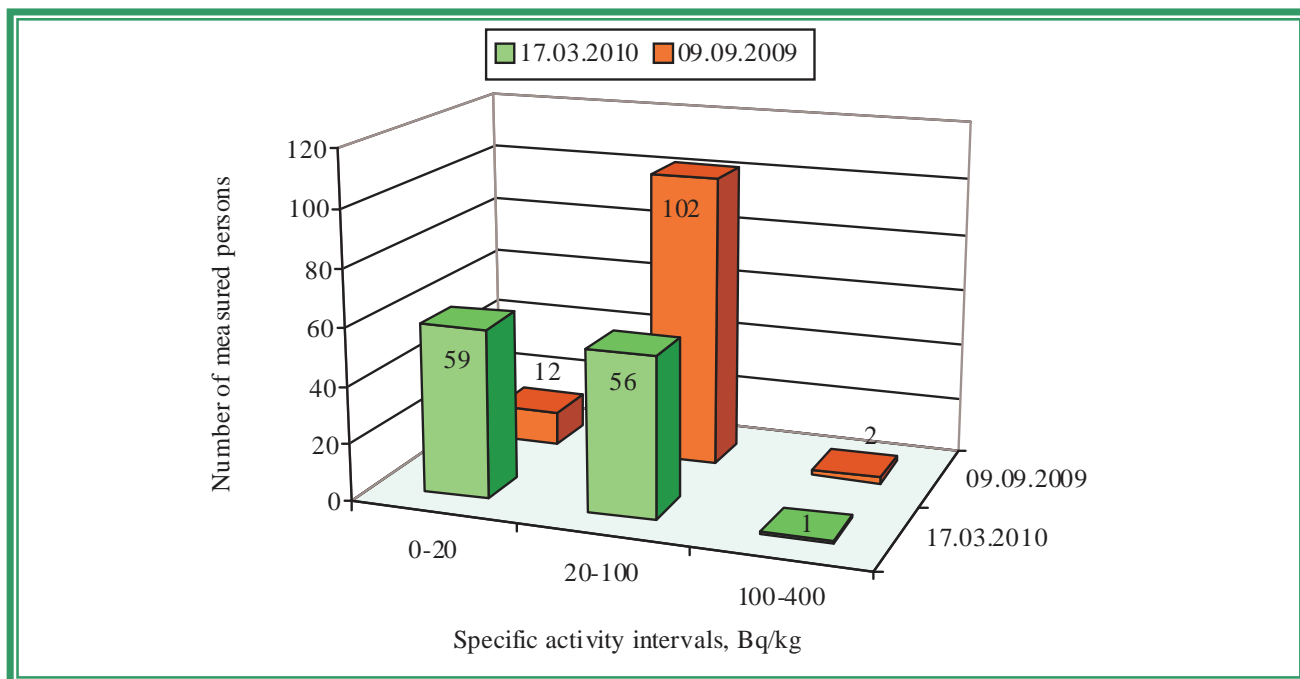


Figure 25 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Simonichi secondary school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009 and March 17, 2010

SLOBODA

Characteristics	Value	Source
^{137}Cs contamination density of the territory	0.88 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	493 persons	Tonezh village council, dated to September 2009
External dose	0.11 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.10 mSv/a	-----<-----
Cumulative dose	1.21 mSv/a	-----<-----

According to the data dated to September 2009 in the Sloboda secondary school there are 56 children and 20 teachers; in the kindergarten there are 8 children, 2 teachers and 8 persons of other staff.

September 11, 2009

The first measurement of children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 61 persons (55 children and 6 adults).

Average ^{137}Cs specific activity in the whole group (n = 55): (27.9 ± 1.3) Bq/kg.

Average specific activity in the critical group (n = 15): (37.6 ± 3.1) Bq/kg.

Median value in the whole group: 28.8 Bq/kg.

Median value in the critical group: 32.9 Bq/kg.

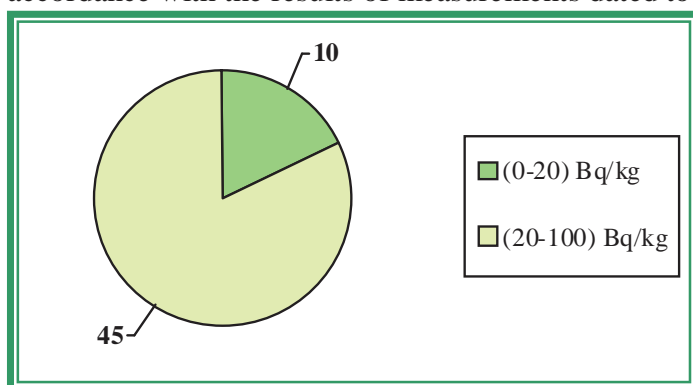
The table 17 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 11, 2009.

Table 17

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	P.V.I.	SCHOOLBOY	M	75	1995	78.6

2.	P.P.P.	SCHOOLBOY	M	29	2000	47.5
3.	P.I.P.	SCHOOLBOY	M	46	1998	41.3
4.	J.O.G.	CHILD PRESCHOOL AGE	M	14	2005	35.7
5.	D.D.V.	SCHOOLBOY	M	30	2000	35.3
6.	Z.V.A.	CHILD PRESCHOOL AGE	M	17	2005	35.0
7.	D.S.V.	CHILD PRESCHOOL AGE	M	17	2005	33.1
8.	O.Yu.V.	ШКОЛЬНИК	F	46	1997	32.9
9.	S.E.V.	CHILD PRESCHOOL AGE	M	22	2003	32.8
10.	K.D.S.	SCHOOLBOY	M	37	1998	32.8
11.	K.N.S.	SCHOOLBOY	M	30	2000	32.3
12.	L.O.V.	SCHOOLGIRL	F	47	1996	32.0
13.	Z.E.I.	SCHOOLBOY	F	50	1998	31.7
14.	A.R.V.	CHILD PRESCHOOL AGE	M	34	2003	31.5
15.	Z.V.V.	CHILD PRESCHOOL AGE	F	24	2003	31.5

The figure 26 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009.



←Figure 26 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009

On February 22, 2010 130 packings of the pectin preparation VITAPECT were given for children.

March 24, 2010

The second measurement of children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 66 persons (63 children and 3 adults).

Average ^{137}Cs specific activity in the whole group (n = 63): (31.7 ± 2.6) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (52.4 ± 8.7) Bq/kg.

Median value in the whole group: 28.9 Bq/kg.

Median value in the critical group: 41.6 Bq/kg.

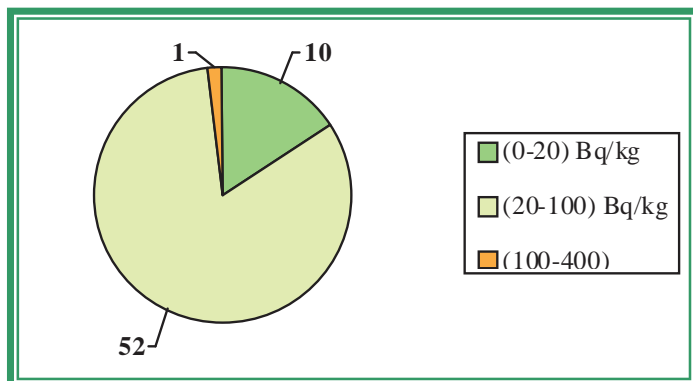
The table 18 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 24, 2010.

Table 18

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	P.V.I.	SCHOOLBOY	M	76	1995	170.1
2.	S.Yu.V.	SCHOOLBOY	M	47	1997	64.0
3.	S.D.V.	SCHOOLBOY	M	55	1996	57.0
4.	J.O.G.	CHILD PRESCHOOL AGE	M	14	2005	54.7
5.	V.D.A.	CHILD PRESCHOOL AGE	M	17	2005	43.8
6.	H.E.R.	SCHOOLGIRL	F	19	2000	42.7
7.	R.M.S.	SCHOOLGIRL	F	20	2002	42.2
8.	Z.V.V.	CHILD PRESCHOOL AGE	F	13	2006	41.6
9.	G.T.A.	SCHOOLGIRL	F	51	1999	40.7
10.	Z.V.A.	CHILD PRESCHOOL AGE	M	17	2005	40.5
11.	M.I.V.	SCHOOLGIRL	F	20	2001	39.0
12.	S.E.V.	SCHOOLBOY	M	22	2003	38.9

13.	K.N.S.	CHILD PRESCHOOL AGE	F	18	2004	38.4
14.	K.D.M.	SCHOOLGIRL	F	23	2003	36.7
15.	K.M.S.	CHILD PRESCHOOL AGE	M	22	2004	35.8

The figure 27 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 24, 2010.



← Figure 27 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 24, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 11, 2009 and March 24, 2010). This group consists of 53 children.

September 11, 2009
March 24, 2010

The first measurement of children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 61 persons (55 children and 6 adults).

The second measurement of children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 66 persons (63 children and 3 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (53 children).

Average specific activity of ^{137}Cs :

after the first measurement: (27.8 ± 1.3) Bq/kg,

after the second measurement: (32.8 ± 3.0) Bq/kg.

Increase of average specific activity of ^{137}Cs was 18%.

Increase of specific activity: in 51% children.

The same level of specific activity: in 19% children.

Reduction of specific activity: in 30% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 53$): $t=2.15$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 27.8 Bq/kg.

Median value after the second measurement: 29.0 Bq/kg.

Increase of median value of specific activity of ^{137}Cs was 4%.

The figure 28 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009 and March 24, 2010.

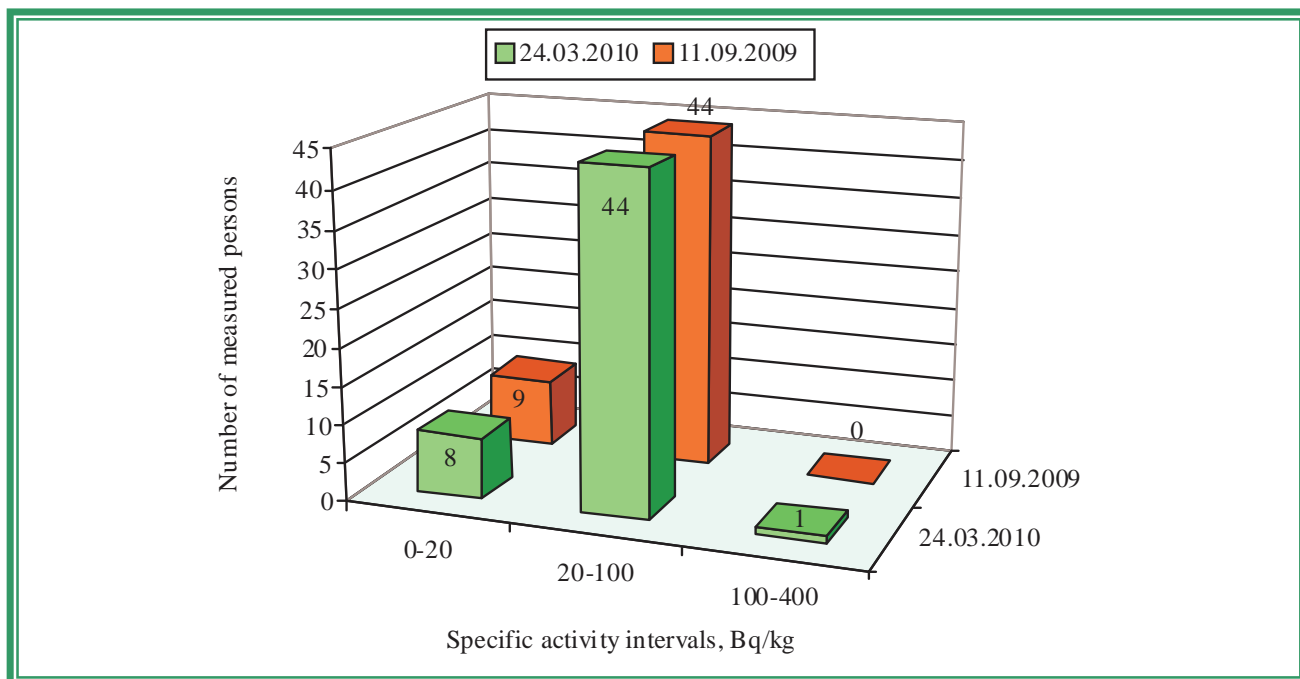


Figure 28 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Sloboda basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 11, 2009 and March 24, 2010

SREDNIYE PECHI

Characteristics	Value	Source
^{137}Cs contamination density of the territory	2.12 Ci/km ²	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	294 persons	Simonichi village council, dated to September 2009
External dose	0.25 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.10 mSv/a	-----<-----
Cumulative dose	0.35 mSv/a	-----<-----

According to the data dated to September 2009 in the Sredniye Pechi basic school there are 40 children; in the kindergarten there are 10 children, 17 teachers and 13 persons of other staff.

September 09, 2009

The first measurement of children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 64 persons (37 children and 27 adults).

Average ^{137}Cs specific activity in the whole group (n = 37): (59.9 ± 6.0) Bq/kg.

Average specific activity in the critical group (n = 15): (89.4 ± 11.0) Bq/kg.

Median value in the whole group: 47.7 Bq/kg.

Median value in the critical group: 69.0 Bq/kg.

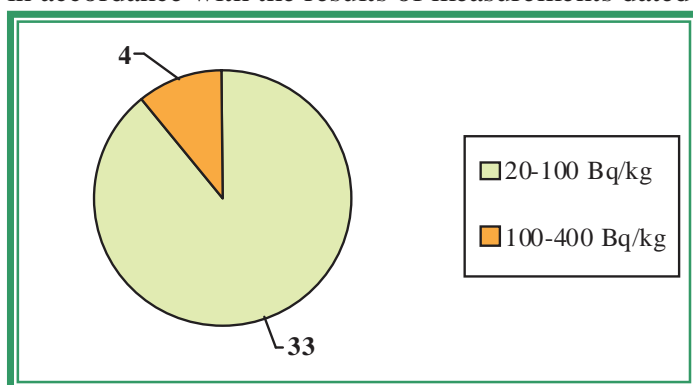
The table 19 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 09, 2009.

Table 19

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	V.A.A.	SCHOOLBOY	M	44	1996	176.0
2.	V.K.D.	CHILD PRESCHOOL AGE	F	20	2003	155.4

3.	Yu.P.I.	SCHOOLBOY	M	48	1997	151.7
4.	V.K.A.	SCHOOLGIRL	F	35	1998	141.2
5.	M.V.D.	CHILD PRESCHOOL AGE	M	16	2005	73.5
6.	G.V.S.	CHILD PRESCHOOL AGE	M	13	2006	72.3
7.	S.M.A.	CHILD PRESCHOOL AGE	F	19	2003	72.3
8.	R.D.V.	SCHOOLBOY	M	20	2002	69.0
9.	L.N.Yu.	SCHOOLBOY	M	38	1995	68.5
10.	A.V.V.	SCHOOLBOY	M	63	1995	67.1
11.	B.E.A.	SCHOOLBOY	M	27	2000	66.2
12.	K.A.A.	CHILD PRESCHOOL AGE	F	16	2007	61.7
13.	Z.M.V.	SCHOOLGIRL	F	30	1998	55.4
14.	K.E.K.	SCHOOLGIRL	F	25	1999	55.2
15.	L.D.A.	CHILD PRESCHOOL AGE	M	21	2006	54.8

The figure 29 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009.



←Figure 29 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009

On February 22, 2010 120 packings of the pectin preparation VITAPECT were given for children.

March 24, 2010

The second measurement of children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 51 persons (38 children and 13 adults).

Average ^{137}Cs specific activity in the whole group (n = 38): (25.2 ± 2.1) Bq/kg.

Average ^{137}Cs specific activity in the critical group (n = 15): (37.6 ± 3.1) Bq/kg.

Median value in the whole group: 22.4 Bq/kg.

Median value in the critical group: 33.6 Bq/kg.

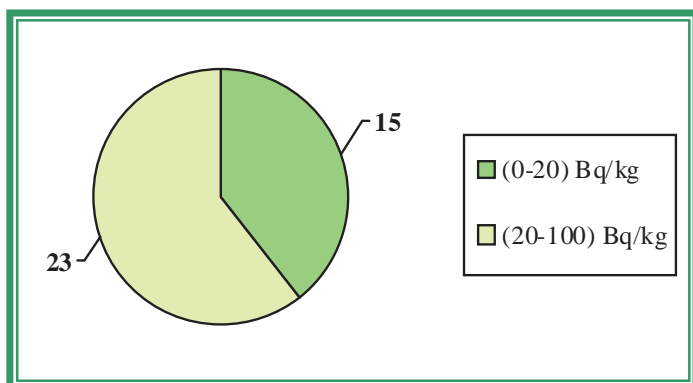
The table 20 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 24, 2010.

Table 20

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	V.K.D.	CHILD PRESCHOOL AGE	F	20	2004	66.1
2.	V.A.A.	SCHOOLBOY	M	48	1996	54.3
3.	V.K.V.	SCHOOLGIRL	F	28	2002	49.6
4.	V.K.A.	SCHOOLGIRL	F	41	1998	46.8
5.	M.A.D.	CHILD PRESCHOOL AGE	F	13	2006	44.1
6.	L.A.Yu.	CHILD PRESCHOOL AGE	M	12	2007	34.8
7.	Yu.P.I.	SCHOOLBOY	M	54	1997	34.7
8.	G.V.S.	CHILD PRESCHOOL AGE	M	15	2006	33.6
9.	Z.V.V.	CHILD PRESCHOOL AGE	M	21	2005	32.4
10.	K.Yu.K.	SCHOOLBOY	M	24	2001	30.5
11.	M.T.A.	CHILD PRESCHOOL AGE	M	21	2005	30.3
12.	M.V.D.	CHILD PRESCHOOL AGE	M	17	2005	29.0
13.	A.P.V.	SCHOOLBOY	M	37	1997	26.1

14.	B.A.A.	CHILD PRESCHOOL AGE	F	16	2006	25.9
15.	M.M.A.	SCHOOLBOY	M	31	1998	25.5

The figure 30 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 24, 2009.



←Figure 30 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 24, 2009

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 09, 2009 and March 24, 2010). This group consists of 30 children.

September 09, 2009 March 24, 2010

The first measurement of children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 64 persons (37 children and 27 adults).

The second measurement of children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 51 persons (38 children and 13 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (30 children).

Average specific activity of ^{137}Cs :

after the first measurement: (63.8 ± 7.1) Bq/kg,

after the second measurement: (24.3 ± 2.4) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 62%.

Increase of specific activity: in 0% children.

The same level of specific activity: in 0% children.

Reduction of specific activity: in 100% children.

The evaluation of the scientific significance according to T-Student criterion (n = 30):
t=7.46. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 49.2 Bq/kg.

Median value after the second measurement: 21.7 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 56%.

The figure 31 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009 and March 24, 2009.

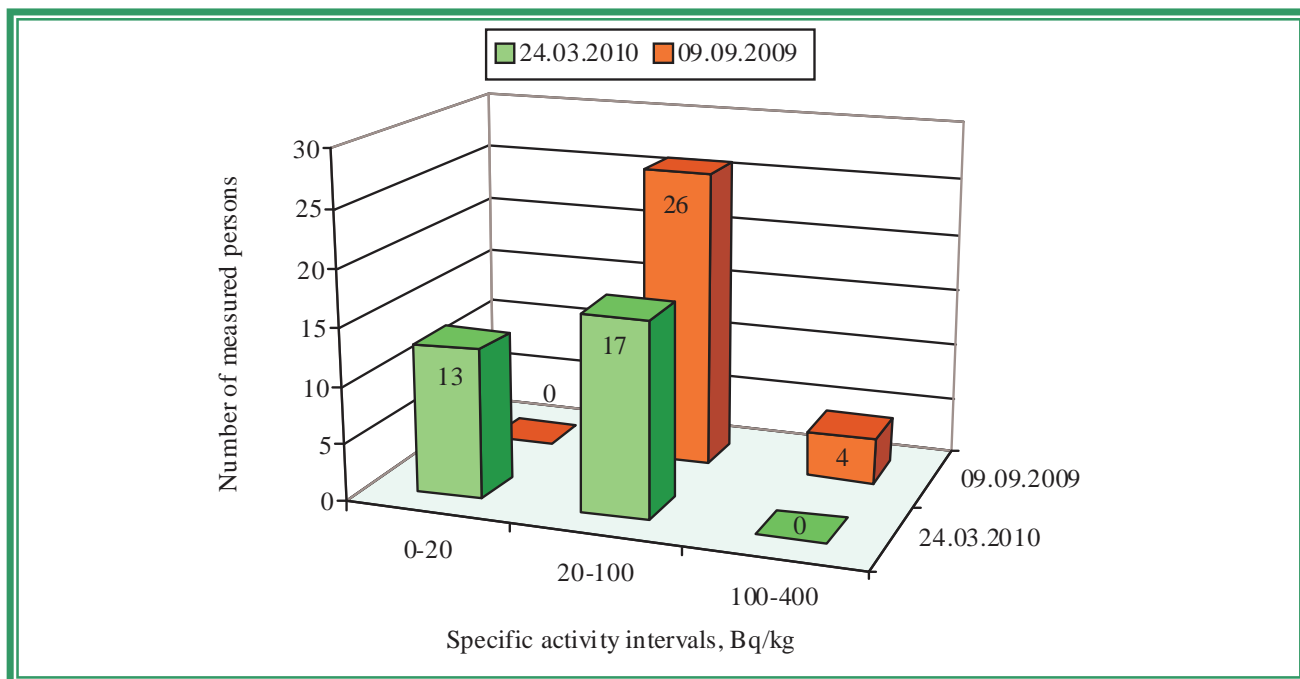


Figure 31 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Sredniye Pechi basic school and kindergarten of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 09, 2009 and March 24, 2009

TONEZH

Characteristics	Value	Source
^{137}Cs contamination density of the territory	There is no data	
Number of inhabitants	594 persons	Tonezh village council, dated to September 2009
External dose	There is no data	
Internal dose	There is no data	-----«-----
Cumulative dose	There is no data	-----«-----

According to the data dated to September 2009 in the Tonezh secondary school there are 67 children, 20 teachers and 18 persons of other staff.

Children from following settlements go to the Tonezh secondary school: Tonezh and Sloboda.

September 10, 2009

The first measurement of children in the Tonezh secondary school of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 75 persons (58 children and 17 adults).

Average ^{137}Cs specific activity in the whole group (n = 58): (23.9 ± 1.5) Bq/kg.

Average specific activity in the critical group (n = 15): (36.3 ± 3.9) Bq/kg.

Median value in the whole group: 22.3 Bq/kg.

Median value in the critical group: 31.5 Bq/kg.

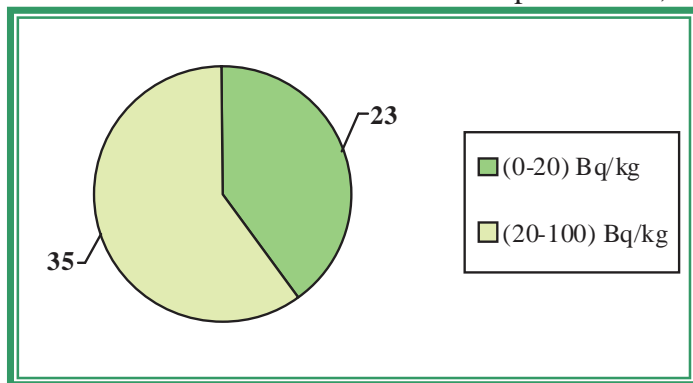
The table 21 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to September 10, 2009.

Table 21

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	L.Yu.F.	SCHOOLGIRL	F	51	1995	88.4
2.	K.O.S.	SCHOOLBOY	M	65	1993	42.6
3.	R.V.N.	SCHOOLGIRL	F	49	1995	40.5
4.	L.T.V.	SCHOOLGIRL	F	36	1996	36.2

5.	S.N.A.	CHILD PRESCHOOL AGE	F	17	2003	34.0
6.	G.A.A.	SCHOOLBOY	M	32	1999	33.0
7.	D.Yu.N.	SCHOOLGIRL	F	28	1999	32.0
8.	K.A.G.	SCHOOLGIRL	F	38	1996	31.5
9.	M.A.G.	SCHOOLBOY	M	37	1998	30.3
10.	A.E.M.	SCHOOLGIRL	F	39	1995	30.2
11.	A.T.S.	SCHOOLGIRL	F	42	1994	29.9
12.	Z.E.M.	SCHOOLGIRL	F	31	1998	29.7
13.	K.E.N.	SCHOOLBOY	M	47	1995	29.4
14.	A.M.V.	SCHOOLBOY	M	30	2000	28.5
15.	M.A.V.	CHILD PRESCHOOL AGE	M	22	2003	28.4

The figure 32 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009.



←Figure 32 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009

On February 22, 2010 150 packings of the pectin preparation VITAPECT were given for children.

March 26, 2010

The second measurement of children in the Tonezh secondary school of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 56 persons (47 children and 9 adults).

Average ^{137}Cs specific activity in the whole group (n = 47): $(17.8 \pm 1.5) \text{ Bq/kg.}$

Average ^{137}Cs specific activity in the critical group (n = 15): $(29.0 \pm 2.1) \text{ Bq/kg.}$

Median value in the whole group: 17.1 Bq/kg.

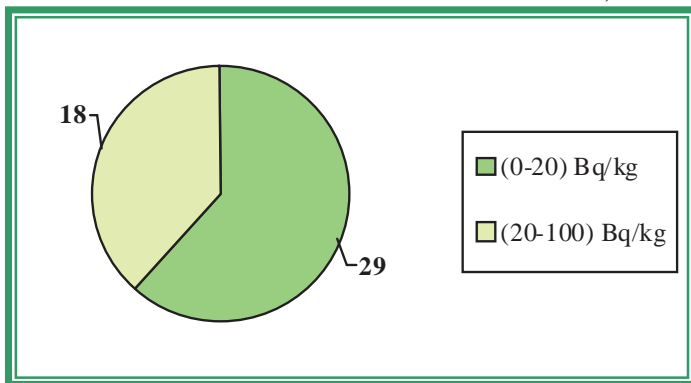
Median value in the critical group: 26.6 Bq/kg.

The table 22 demonstrates the maximal levels of ^{137}Cs specific activity (the critical group) according to the results of measurements dated to March 26, 2010.

Table 22

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	E.Yu.A.	SCHOOLGIRL	Ж	47	1994	53.8
2.	E.A.A.	SCHOOLBOY	M	44	1995	35.2
3.	K.I.N.	SCHOOLGIRL	Ж	18	2003	32.9
4.	R.V.N.	SCHOOLGIRL	Ж	49	1995	32.6
5.	K.F.G.	SCHOOLBOY	M	23	2002	32.5
6.	S.V.V.	SCHOOLBOY	M	23	2002	30.1
7.	K.O.S.	SCHOOLBOY	M	65	1993	27.1
8.	K.A.G.	SCHOOLGIRL	Ж	39	1996	26.6
9.	P.Ya.A.	SCHOOLGIRL	Ж	37	1996	25.6
10.	K.N.N.	SCHOOLBOY	M	25	2000	25.5
11.	A.T.S.	SCHOOLGIRL	Ж	42	1994	24.2
12.	E.S.V.	SCHOOLBOY	M	41	1995	24.2
13.	M.V.G.	SCHOOLGIRL	Ж	28	2001	21.9
14.	G.V.A.	SCHOOLGIRL	Ж	22	2002	21.4
15.	A.I.A.	SCHOOLBOY	M	31	1997	21.1

The figure 33 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 26, 2010.



←Figure 33 – Diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to March 26, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of ^{137}Cs in children having taken VITAPECT and having passed two WBC measurements (on September 10, 2009 and March 26, 2010). This group consists of 41 children.

September 10, 2009 March 26, 2010

The first measurement of children in the Tonezh secondary school of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 75 persons (58 children and 17 adults).

The second measurement of children in the Tonezh secondary school of Lelchitsy district of Gomel region was performed in the school building. A total of measured persons was 56 persons (47 children and 9 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (41 children).

Average specific activity of ^{137}Cs :

after the first measurement: (24.3 ± 2.0) Bq/kg,

after the second measurement: (17.3 ± 1.6) Bq/kg.

Decrease of average specific activity of ^{137}Cs was 29%.

Increase of specific activity: in 22% children.

The same level of specific activity: in 4% children.

Reduction of specific activity: in 4% children.

The evaluation of the scientific significance according to T-Student criterion ($n = 41$): $t=3.93$. The received criterion $t > 1.96$; $p < 0.01$.

Median value after the first measurement: 21.9 Bq/kg.

Median value after the second measurement: 17.1 Bq/kg.

Decrease of median value of specific activity of ^{137}Cs was 22%.

The figure 34 contains the diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009 and March 26, 2010.

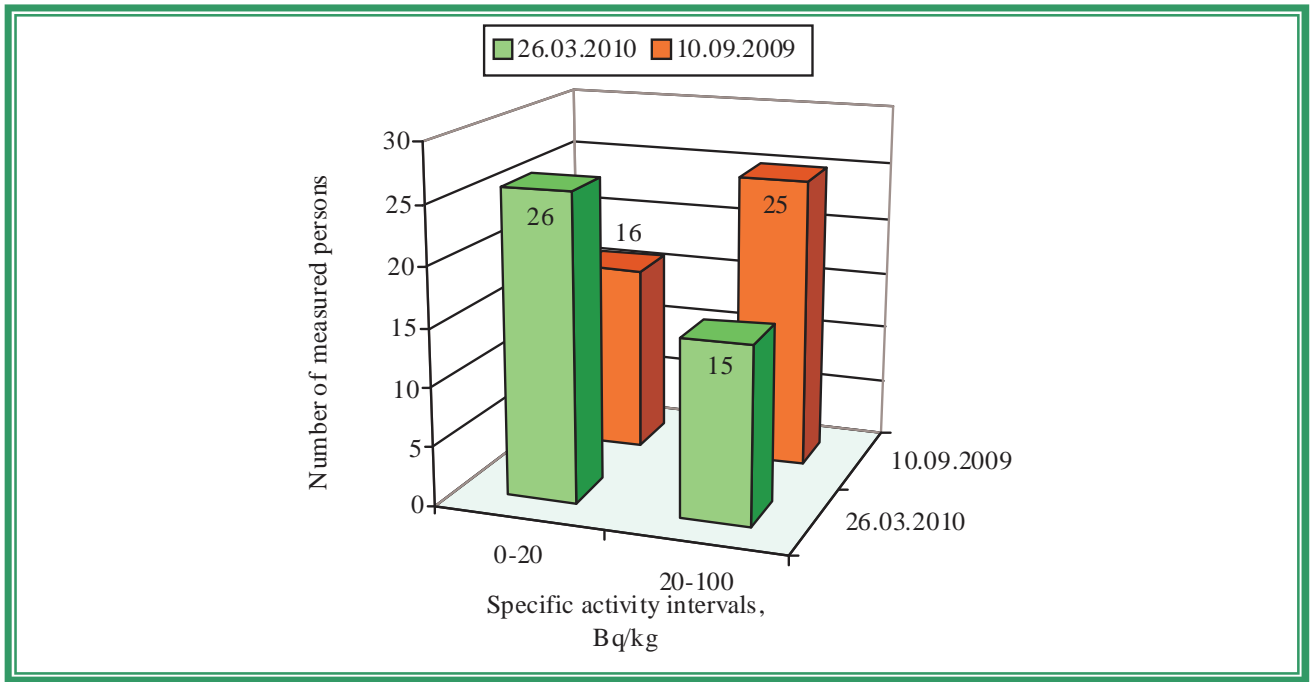


Figure 34 - Diagram of the interval ^{137}Cs specific activity distribution in children in the Tonezh secondary school of Lelchitsy district of Gomel region in accordance with the results of measurements dated to September 10, 2009 and March 26, 2010

Senior engineer

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