

**Supplementary file for Karetnikov et al. “Assembly and Analysis of Plastomes for 15
Potato Cultivars Grown in Russia”, Agronomy, 2023**

Table S1. The set of potato plastomes used in the study. Last column shows the reference number in the manuscript.

Species	Abbreviation/name	NCBI id	Ref.
<i>S. tuberosum andigenum</i>	ADG1	MT120861	[7]
<i>S. tuberosum andigenum</i>	ADG2	MT120862	[7]
<i>S. ahanhuii</i>	AJH	MT120857	[7]
<i>S. bukasovii</i>	BUK1	MT120860	[7]
<i>S. bukasovii</i>	BUK2	MT120867	[7]
<i>S. chaucha</i>	CHA	MT120864	[7]
<i>S. curtilobum</i>	CUR	MT120866	[7]
<i>S. stenotomum goniocalyx</i>	GON1	MT120855	[7]
<i>S. stenotomum goniocalyx</i>	GON2	MT120856	[7]
<i>S. juzupczukii</i>	JUZ	MT120863	[7]
<i>S. phureja</i>	PHU	MT120858	[7]
<i>S. stenotomum stenotomum</i>	STN	MT120859	[7]
<i>S. tuberosum</i>	TBR	MT120865	[7]
<i>S. tuberosum</i>	Atlantic	MZ030720	[24]
<i>S. tuberosum</i>	Colomba	MZ030723	[24]
<i>S. tuberosum</i>	Altus	MZ030719	[24]
<i>S. tuberosum</i>	Avenger	MZ030721	[24]
<i>S. tuberosum</i>	Castle Russet	MZ030722	[24]
<i>S. tuberosum</i>	Spunta	MZ030724	[24]
<i>S. chacoense</i>	15-27-1	-	[23]
<i>S. chacoense</i>	Legenda	-	[23]
<i>S. tuberosum</i>	Shah	-	[23]
<i>S. tuberosum</i>	Argo	-	[23]
<i>S. tuberosum</i>	Alaska	-	[23]

Table S1. Continued.

Species	Abbreviation/name	NCBI id	Ref.
<i>S. tuberosum</i>	Mishka	-	[23]
<i>S. tuberosum</i>	14_6_3	-	[23]
<i>S. tuberosum</i>	16_4_3	-	[23]
<i>S. tuberosum</i>	Bankir	-	[23]
<i>S. tuberosum</i>	12_22_134	-	[23]
<i>S. tuberosum</i>	15_22_4	-	[23]
<i>S. tuberosum</i>	14_4_1	-	[23]
<i>S. tuberosum</i>	16_1_2	-	[23]
<i>S. tuberosum</i>	16-35-5	-	[23]
<i>S. tuberosum</i>	Zdraven	-	[23]
<i>S. tuberosum</i>	Utro ranneye	-	[23]
<i>S. tuberosum</i>	Iskra	-	[23]
<i>S. tuberosum</i>	Gornyak	-	[23]
<i>S. tuberosum</i>	Otrada	-	[23]
<i>S. tuberosum</i>	Start	-	[23]
<i>S. tuberosum</i>	Terra	-	[23]
<i>S. tuberosum</i>	Amur	-	[23]
<i>S. tuberosum</i>	Bravo	-	[23]
<i>S. tuberosum</i>	Bagira	-	[23]
<i>S. tuberosum</i>	Baron	-	[23]
<i>S. tuberosum</i>	Kamenskiy	-	[23]
<i>S. tuberosum</i>	Irbitskiy	-	[23]
<i>S. tuberosum</i>	Luks	-	[23]

Table S2. Microsatellite numbers for 15 potato cultivars grown in Russia of *S. tuberosum*.

Cultivar	mono	di	tri	tetra	penta
Fritella	38	6	2	8	1
Golubizna	36	6	2	8	1
Grand	39	6	2	8	1
Gusar	39	6	2	8	1
Krasa Meshchery	38	6	2	8	1
Krasavchik	36	6	2	8	1
Krepysh	38	6	2	8	1
Meteor	39	6	2	8	1
Nevsky	38	6	2	8	1
Nikulinsky	36	6	2	8	1
Severnoe siyanie	36	6	2	8	1
Sudarinya	39	6	2	8	1
Symphonia	36	6	2	8	1
Udacha	38	6	2	8	1
Zhukovsky	38	6	2	8	1

Table S3. Microsatellite sequences identified in plastomes of 15 potato cultivars grown in Russia.

Cultivar	A	T	AT	TA	AAG	TTA	AAAC	TATT	TTAT	TTTA	TTTG	CTAT	CAAA	AATTG
Fritella	15	23	3	3	1	1	1	1	1	1	1	2	1	1
Golubizna	14	22	3	3	1	1	1	1	1	1	1	2	1	1
Grand	15	24	3	3	1	1	1	1	1	1	1	2	1	1
Gusar	15	24	3	3	1	1	1	1	1	1	1	2	1	1
Krasa Meshchery	15	23	3	3	1	1	1	1	1	1	1	2	1	1
Krasavchik	14	22	3	3	1	1	1	1	1	1	1	2	1	1
Krepysh	15	23	3	3	1	1	1	1	1	1	1	2	1	1
Meteor	15	24	3	3	1	1	1	1	1	1	1	2	1	1
Nevsky	15	23	3	3	1	1	1	1	1	1	1	2	1	1
Nikulinsky	14	22	3	3	1	1	1	1	1	1	1	2	1	1
Severnoe siyanie	14	22	3	3	1	1	1	1	1	1	1	2	1	1
Sudarinya	15	24	3	3	1	1	1	1	1	1	1	2	1	1
Symphonia	14	22	3	3	1	1	1	1	1	1	1	2	1	1
Udacha	15	23	3	3	1	1	1	1	1	1	1	2	1	1
Zhukovsky	15	23	3	3	1	1	1	1	1	1	1	2	1	1

Table S4. Fragment sizes in bp revealed after restriction analysis *in silico* by five enzymes for 15 potato cultivars grown in Russia.

Cultivar	<i>Bam</i>HI	<i>Hind</i>III	<i>Kpn</i>I	<i>Pvu</i>II	<i>Xho</i>I	Type
Golubizna	12,206	11,757	6,222	9,853	8,153	T
Krasavchik	12,206	11,757	6,222	9,853	8,153	T
Nikulinsky	12,206	11,757	6,222	9,853	8,153	T
Severnoe siyanie	12,206	11,757	6,222	9,853	8,153	T
Symphonia	12,206	11,757	6,222	9,853	8,153	T
Fritella	15,605	-	-	-	-	W
Grand	15,605	-	-	-	-	W
Gusar	15,605	-	-	-	-	W
Krasa Meshchery	15,605	-	-	-	-	W
Krepysh	15,605	-	-	-	-	W
Meteor	15,605	-	-	-	-	W
Nevsky	15,605	-	-	-	-	W
Sudarinya	15,605	-	-	-	-	W
Udacha	15,605	-	-	-	-	W
Zhukovsky	15,605	-	-	-	-	W

Inverted Repeats



Figure S1. Visualization of junction-sites in plastomes of the 15 potato cultivars grown in Russia (JLB, JLA, JSA, JSB). The size of the plastomes indicated on the left under the cultivar names.

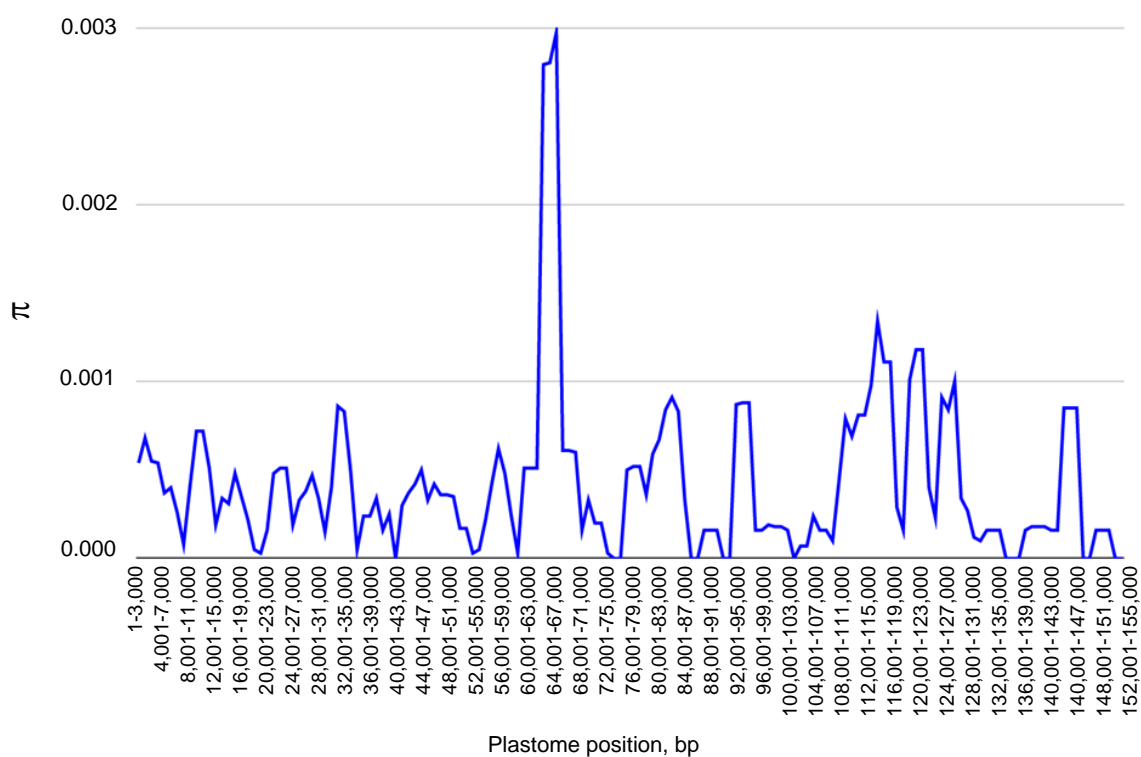


Figure S2. Distribution of nucleotide diversity in plastomes of 49 *S. tuberosum* cultivars. The X-axis shows the coordinates of the plastome multiple sequence alignment. The Y-axis shows the nucleotide diversity, π .

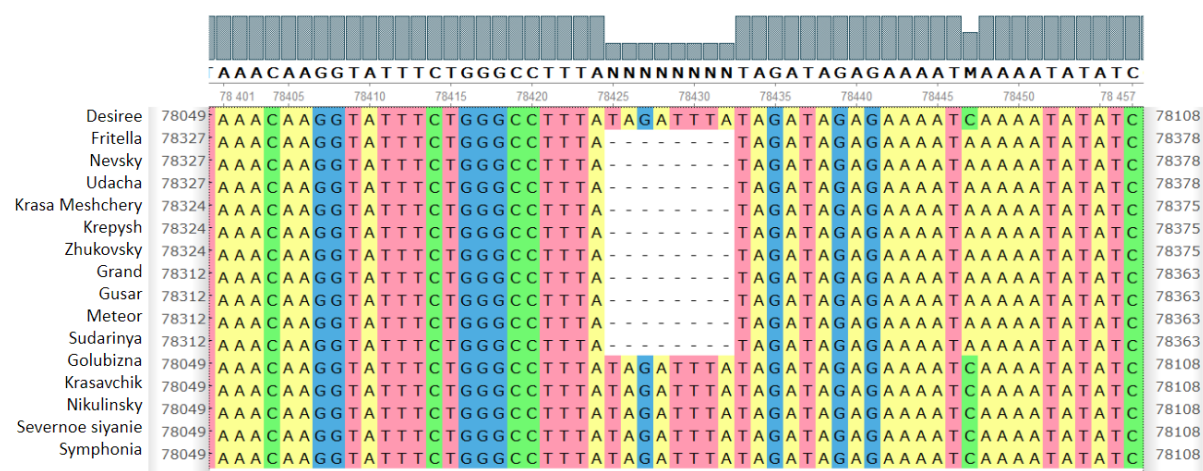


Figure S3. Fragment of alignment of plastome sequences of 15 potato cultivars grown in Russia. The alignment demonstrates a deletion in a number of plastomes, which affects part of the exon of the gene *petB*.