

A BRIEF NOTE ON EGYPTIAN COTTON IN USSR AND RUSSIAN VARIETIES OF *G. BARBADENSE*

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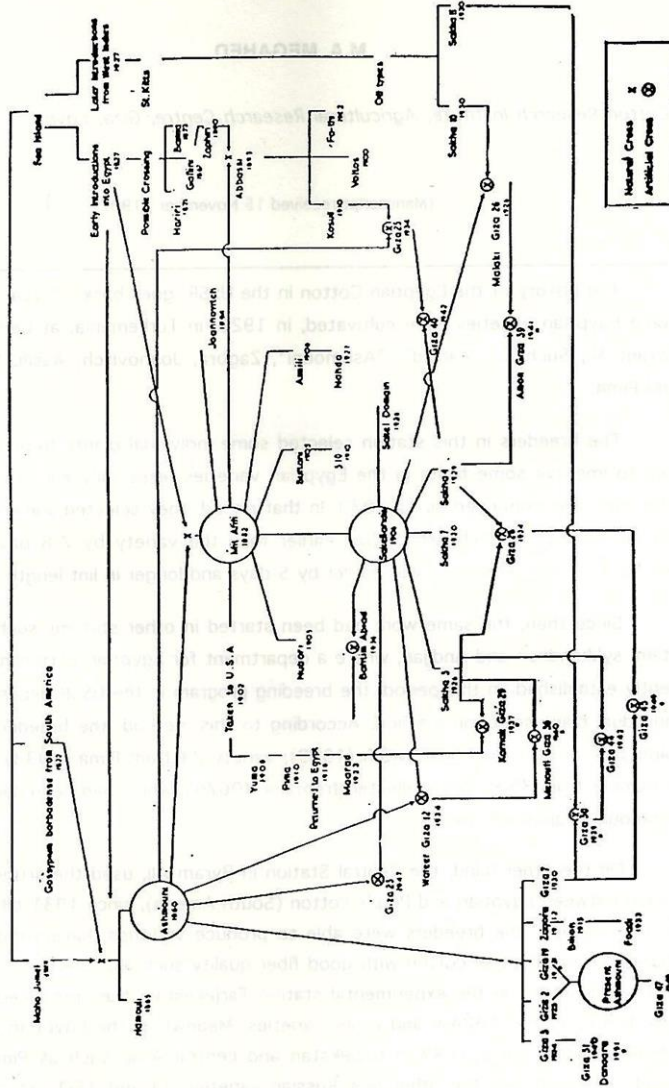
The history of the Egyptian Cotton in the USSR, goes back 50 years ago, when some Egyptian varieties were cultivated, in 1926, in Turkemenia, at Central Station Byram Ali, Such as "Marrad", "Ashmouni", Zagora, Joanovitch, Assili, Sakellaridis, and Pima.

The breeders in this station selected some individual plants from those varieties to improve some traits in the Egyptian varieties, especially earliness and yield. This work was continued up till 1930. In that period, they selected some lines as line No 78 from Joanovitch, which was earlier than the variety by 7-8 days, also the line No 175 from Ashmouni was earlier by 5 days and longer in lint length by 3 mm.

Since then, the same work had been started in other stations such as Tarjekstam, sykhandrian and Andijan, where a department for Egyptian cotton has been recently established. In this period, the breeding program in the USSR depended on the individual plant selection method. According to this method, the breeders produced variety (2 and 3) from Joanovitch (1933), variety 23 from Pima (1933) and a serial number from 35-9. Were selected from line (0670), which had been selected from Ashmouni (Kanasha, 1948).

On the other hand, the Central Station in Byram Ali, used the artificial hybridization between Egyptian and Peru's cotton (South America), since 1931 till 1940. Due to this method, the breeders were able to produce varieties, having morphological characters of Egyptian cotton with good fiber quality such as, varieties 1320, 1321, 1374 and others. In the experimental station Tarjekestan, they produced the varieties 424-v, 124-v, 1924-v and other varieties. Meanwhile, the Egyptian cotton has been cultivated since 1939 in Uzbekstan and central Asia, such as Pima, Maarad, Sakel, Ashmouni and the other new Russian varieties 23 and 35-1, which were selected from the Egyptian cotton.

Origin of Egyptian cotton varieties since 1818.



From table 1, one can suggest that the most Russian varieties *G.barbadense* belonged to Egyptian and Peru's (South America) cotton (Arutynova et al. 1980). Also from the same table one can notice that most of the germplasm of Russian varieties is related to Egyptian varieties such as Ashmouni, Joannovitch, Maarad and Zagora. These varieties were the main source for breeders in most research stations in USSR (Ibragimov, 1974).

The origin of Egyptian varieties (El-Bahtimey 1952) showed that the germplasm of Egyptian cotton belonged to the natural cross between Maho - Jomel cotton, cotton from south America, and Sea Island cotton. Meanwhile, Al-Didi (1972) concluded that, between 1822 and 1865, various Sea Island and Brazilian cottons were imported, and there is but little doubt that Jomel cotton became mixed with the introduced varieties, and selection out of this heterogeneous populations gave us the Ashmouni stock.

From table 1 it could be concluded that the source of original germplasm of the *barbadense* cotton had been the same for both the Egyptian and the Russian cottons. The aim of this note is to explain the origin of some Russian varieties, which were used in Egyptian cotton breeding programs, such as S-6030, S-6037, Termis-16 and E-8017. Recently, the new long staple variety Giza 89 was derived from a cross between (Giza 75) and the Russian cultivar S-6022.

Table 1. The Origin of some Russian varieties *G. barbadense*.

Variety	Origin of variety	Year of production	Characters				
			Boll weight	Lint %	fiber length	fiber strength	Metric number
Turkemenia station							
35-1	individual plant selected from Ashmouni (0670)	1938	2.7-3.2	32.34	36-38	5.1	5880
35-2	individual plant selected from Ashmouni (0670)	1939	2.6-2.8	29-30	42.2	4.6	7190
2525	(35-B) x (2 and 3) (35-B) from Ashmouni (0670) (2 and 3) from Joannovitch	1950	3.2	25-26	43.44	4.4	8190
2836	(0786x35-1) x (2 and 3) 0786 line from Peru cotton	1944	3.0-3.5	32-34	36-39	5.8	5790
2850	(0786x35-1)x(2 and 3)	1946	3.0-3.5	31-33	38.9	5.0	6800
10964	(0786 x 2 and 3) x (2 and 3)	1946	3.4-3.9	31-32	37.4	5.0	6670
5-6002	(0786x2 and 3) x (2 and3)	1954	3.3-3.5	31-33	39.6	4.6	6420
5-6009	35-2x2117 (Line from Pima)	1954	3.7	32.1	40-41	4.9	7800
5-6015	S-6002 x mixture of pollen grains from 2525, E-5904 2525 = 38-B x 2 and 3 E-5904 = 1201 - Ex3169-E 1201-E = 0669 Zagora Egypt 3169=283-Ex 1076-E 283-E = 0670 Ashmouni 1076-E = 0670 Ashmouni	1960	3.5-3.7	28-29	38.9	4.9	7290
5-6022	2296 x 2352 2296 (0876x2 and 3) 2352 (6074 x 714) 6074 (T-50 x Maarad) T-50 Line from Peru cotton 714 line from 35-1 (Ashmouni)	1962	2.9-3.2	29-30	41.7	5.0	7780
5-6026	(2296x5-6002) x S-6002 2296-(0876 x 2 and 3)	1963	3.6	33.6	41.9	5.2	7200
5-6027	2296 x S-6002	1965	3.5	34-35	41.3	4.9	7450
5-6030	S-6022 x S-6015	1971	3.5-3.7	28-30	42.3	4.1	8120
5-6037	individual plant selected from S-6030	1971	4.1	31.9	41.1	4.8	7900
Sykhanderian and Andejan							
46-P	individual plant selected from line No 4931 (Ashmouni)	1938	3.1	29.4	37.0	-	-
47-P	individual plant selected from line No 4931 (Ashmouni)	1937	3.1	28.5	38.3	5.0	5960
48-P	individual plant selected from line No 4931 (Ashmouni)	1937	3.1	31.6	37.3	5.1	5740

Table 1. Continued

Variety	Origin of variety	Year of production	Characters				Metric number
			Boll weight	Lint %	fiber length	fiber strength	
123-P	individual plant selected from foadi	1937	2.8-3.0	29.31	37.5	5.0	6080
136-P	(2 and 3) x 35-1	1948	2.9-3.2	35.9	37.2	5.5	6000
155-P	line No 592 from (2and 3) x Giza -29	1961	3.3	31.1	40.9	5.7	8940
Tarjkestan							
23	individual plant selected from line No 2156 from Pima	1935	3.2-3.5	28-30	41-43	4.6	7330
153-v	individual plant selected from Poadi	1940	2.7	31.2	37.0	5.9	6160
2727-v	line No 2867 from Foadi	1946	3.3	30-31	39.40	6.6	6090
2946-v	2 and 3 x 35-1	1946	3.3	35-36	35-36	6.6	5700
2957-v	2 and 3 x 35-1	1946	3.3	32-33	38-39	5.2	6780
7318-v	S-6022 x Giza 45	1972	4.3	32-33	40-41	4.9	7200
7588-v	S-6022 x Giza 45	1973	4.0	31.1	39.8	4.8	7900
2 and 3	(1610) line from Joannovitch	1938	3.0-3.5	29-31	38.2	4.6	7450
26-E	(1610) line from Joannovitch	-	-	-	34-35	5.5	5800
48-E	selected from Pima	-	-	-	33-34	6.8	5070
151-E	selected from Pima	-	3.0	29.0	38.2	4.9	7040
348-E	selected from Pima	-	3.5	28.29	35-36	5.7	6640
910-E	selected from line(01348) from Zagora	1940-1947	3.1-3.3	31-32	38.5	4.5-5.0	6920
1201-E	selected from line (0669) from Zagora	-	3.4	29.0	39.40	4.8	7000
1276-E	selected from line (0669) from Zagora	1932	3.6	30.31	38-39	4.6	7260
2963-E	(02719) line from Giza 7	-	3.3	29.30	36-37	5.5-5.9	6300
3169-E	283-Ex 1076-E	-	3.4	33-35	36-37	5.2	6500
283-E from line No (0670) from Ashmouni							
1076-E selected from line No (0670) from Ashmouni							
4710-E	selected from Ashmouni	1945	3.3	32-33	36-39	5.4	6400
4729-E	selected from Ashmouni	1944	3.8	35-36	38-39	5.3	6500
4736-E	selected from Ashmouni	1944	3.6	32-33	38-1	5.3	6500
4833-E	selected from Joannovitch	-	3.9	29-30	36.0	6.6	5880
5904-E	1201-E x 3169-E	1953	3.2-3.4	33-36	37.7	5.2	5790
1201-E selected from line No (0669) from Zagora							
3169-E: 283-E x 1076-E							
283-E : selected from Ashmouni							
1076-E: selected from Ashmouni							
8119-E	27-E x 0876	1949	2.9	32-33	37-38	4.7	6550
27-E selected from Joannovitch							
0876 from peru cotton							
9112	selected from 8981-E	1957	2.5-3.1	28-29	40.0	4.6	7910
8981-E (8322-E x 4844-E)							

Table 1. Continued

Variety	Origin of variety	Year of production	Characteru			Metric number
			Boll weight	Lint %	fiber length	
	8322-E : 3169 - Ex 01326					
	3169-E: (283 from Ashmouni x 076 from Ashmouni					
	01326: selected from Peru cotton					
Ash-8	4844-E:0876x1076 from Ashmouni	1958	3.8	30-31	38-39	5.0
Ash-85-8	5904-Ex 2 and 3	1968	3.3	33.5	42.4	4.7
	8945-Ex mixture of pollen grains from 5535-E: 910-Ex348-E					
	9123-E,8173-E, 504-U, Giza 45 and Giza 47					
	8945-E: (5535-Ex 5666-E)					
	55335-E : 910-EX 348-E					
	910-E: from Zagora					
	348-E: from Pima					
Ash-91-b	5666-E: (348-E x seaisland No 2) Ash-8 x Giza 45	--	3.0	35.5	39.4	4.6

3. Fiber length (mm.)

1. Boll weight (in grams) 2. Lint percent

4. Fiber strength (measured by Dinamometer instrument)

5. Fineness (measured as a metric count; the number of yards per one pound).

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