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Tolerance of New Introgressive Hybrid and Backcross Forms Pathogenic Micromitisms (*Verticillium dahliae* Kleb and *Fusarium oxysporum* f.sp. *vasinfectum*)

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Abstract

The article is based on the use of experimental polyploidy method, with the introduction of new introgressive hybrid forms combining several species genotype with pathogenic *Verticillium dahliae* Kleb. and the effects of mycotoxins separated from the *Fusarium oxysporum* f.sp. *vasinfectum* micromicette on the yield of plant seeds. New artificial complex hypertension forms based on experimental polyploidy *Verticillium dahliae* Kleb. and *Fusarium oxysporum* f.sp. *vasinfectum* combine the potential of resistance to mycotoxins separated from microcrystals, making a tremendous contribution to the selection of new varieties and to the effectiveness of selection as a result of the use of genetic selective research as genetic-selective genetic-selector studies.

Keywords

Verticillium dahliae Kleb., *Fusarium oxysporum* f.sp. *vasinfectum,* Cotton, Mycotoxin, Experimental Polyploidy

1. Introduction

Currently, one of the major areas of agriculture in the world is focusing on the improvement of the genetic capacity of valuable crops of cultivated crops through the use of cotton (*Gossypium* L.) crop, which is a genetically resistant source of resistant diseases and pests and wild ancestors of agricultural crops. One of the pressing issues is the expansion of cotton-fiber orientation and the creation of highly productive cotton varieties with high competitiveness and high quality in the world.

As known, the most common pathogenic *Verticillium* and *Fusarium* species in the microorganisms in the soil have a negative effect on the disease of one year, two years and perennial plants [1] [2].

Sherimbetov A.G. [3] studied the species of *G. hirsutum* L. on the varieties of samples in their varieties, which is separated from fungi belonging to Fusarium family. As a result of the research, the 576,601,656 strains of the *F. oxysporum* strains isolated from the fucarial inflammation in the Bukhara region were found to be 8.0% - 35.0%, and 6 of Bukhara—16.0% - 31.0% which had a negative impact on the decline. The 595 strains isolated from the soil have detected the negative effects of AN-Bayaut-2 and Bukhara 6 on 100.0% seeds degradation.

Participation in the *Gossypium* L. tetraploidal and diploidal species involves the use of experimental polyploidy techniques to provide valuable economic and agricultural diseases (*gomosis, fuzariosis, fuzariosis, and verticalisation*), resistant to insecticides. And the results of research by foreign scientists have been applied to genetics and selective selection [4]-[11]. Specifically Australian varieties (2n = 26) have valuable properties. In particular, insufficient gossypol glands in the seeds are consumed by humans and animals as potential source of food, pest infestation (*Aphis gossupii* Glov., Acari Leach), diseases (*Fusarium, Verticillium*), low temperature and abiotic stress drought are resistant to factors [12] [13] [14] [15]. *G. arboreum* diploidal type (2n = 26) was identified as pests (*Apolygus lucorum*) [16], disease (*Verticillium dahliae, Fusarium oxysporum*) [17] [18] [19] and drought resistance [20].

S.S. Kanash [21] [22] has studied instrumental solving many of the theoretical and practical questions facing genetic and selection. It has been shown that *G. hirsutum* L. and *G. herbaceum* L. species are resistant to germose (*Xanthomonas malvacearum* Dows.), Resistant to the hybrid of *G. barbbadense* L. and *G. arboreum* L. on the basis of hybridisation by S-3802 resistant to fusarium (*Fuzarium oxysporum f. vasinfectum ND*) and has a close proximity to the *G. barbbadense* species of *G. arboreum* species on the silkiness, elasticity and aging of the fiber.

Specimen species of *G. herbaceum* L. and *G. arboreum* L. were used as donor species in intersection of tetraploid varieties, especially for disease and insect resistance [23].

2. Materials and Methods

The first source of research is the new introgressive hybrid forms [24], which combine genotype with a number of species on the basis of the experimental polyploidy method and *Verticillium dahliae* Kleb. and *Fusarium oxysporum f.sp. vasinfectum* (obtained from the Collection of Phytopathogenic Microorganisms—a Unique Scientific Object of the Institute of Genetics and Plant Experimental Biology of the Academy of Sciences of Uzbekistan).

The fungal specimens were grown in 100 ml of the Chapek-Doksa feeding medium for 15 days in 250 ml tubes at a temperature of 25˚C - 270˚C (Figure 1(a)). After the cultivation process was completed, filtered to separate the mycelium from the feed medium (Figure 1(b)).

The effects of toxins in the cultured fluid of fungi were tested for 30 seeds.

Seeds of 30 seeds were screened for cultured fluid in the fungus for one day. Seeds of control were sown in Chapek-Doksa food and distilled water (Figure 1(c)). Sprinkled seeds were placed in a sun-dried camera with a temperature of 18˚C to 200˚C (Figure 1(d) and Figure 1(e)) to observe the rate of flour in a 7 to 10-day moist cell in a Petri dish. On the tenth day of the experiment, the rate of seeding, the root and the length of the seeds were measured (Figure 1(f)).

Characteristics of mitotoxin cultivation of fungi are reduced by the reduction of reproductive tissue, reduction of root and stomach growth by the following formula:

(a) (b) (c) (d) (e) (f)

Figure 1. Research methods.

$$T = 100\% - \left(L/Lk \cdot 100\right)$$

Depending on the pathogenicity of studied plants, it is divided into the following groups:

Strong resistant—no more than 0.0% - 30.0% seeds.

Low-resistant—31.0% - 50.0% without seeds.

Medium-resistant—51.0% - 70.0% without seeds.

Strongly unstable—71.0% - 100.0% of seeds did not sprout.

3. Results

During the research, the level of influence of mycotoxins on the yield of plant seeds separated from microcucetes of *Verticillium dahliae* Kleb., *Fusarium oxysporum* f.sp. *vasinfectum* was investigated, using new experimental hypertrophy forms combining genotype with the use of experimental polyploidy method. It should be noted that the introgressive hybrid forms of studied plants showed that the tolerance of plant seeds was 100.0% (**Table 1**) F_2C *G. hirsutum* ssp. *euhirsutum* "Kelajak" × (ssp. *nanking* (white fiber) × *G. nelsonii*) hybrids combination. The low strength of mycelium (50.0%) against mycotoxins of *Verticillium dahliae* and *Fusarium oxysporum* f.sp. *vasinfectum* was observed (**Figure 2**).

F_2C *G. hirsutum* ssp. *euhirsutum* "Namangan 77" × (ssp. *obtusifolium, indicum* × *G. australe*) hybrid combination with mycelium from *Verticillium dahliae* was 50.0%. In this study, in combination with hybrid, the resistance of the mycotoxins from the *Fusarium oxysporum* f.sp. *vasinfectum* microcrycate was strongly determined (75.0% of the seeds did not grow).

F_2B_1C Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] backcross hybrid combination of bacterial bicolor *Verticillium dahliae* tolerance was 90.0%. The effect of mycotoxins separated from the *fusarium oxysporum* f.sp. *vasinfectum* microcrystine was 50.0%. In the future combinations of bacterium bacteria, *Verticillium dahliae*, the mycotoxin effect is the result of plant 25.0% to 30.0% of the seeds are resistant to frostbite. In the combination of F_2B_1C Наманган 77 × [Наманган 77 × (ssp. *obtusifolium var. indicum* ×

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

Figure 2. F_2 Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*).

Table 1. Introgressive hybrid forms *Verticillium dahliae* Kleb., *Fusarium oxysporum* f.sp. *vasinfectum* degree of influence of mycotoxins on microorganisms on bacterial seed tolerance.

№	Hybrid and backcross combinations	Control		*Verticillium dahliae* Kleb.		*Fusarium oxysporum* f.sp. *vasinfectum*	
		Grown Seeds %	Non grown seeds %	Grown Seeds %	Non grown seeds %	Grown Seeds %	Non grown seeds %
	F_2 hybrids						
1	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)	100.0	0.0	50.0	50.0	25.0	75.0
2	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)	100.0	0.0	50.0	50.0	50.0	50.0
	F_2B_1C backcross hybrids						
3	Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)]	100.0	0.0	25.0	75.0	0.0	100.0
4	[Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77	100.0	0.0	0.0	100.0	25.0	75.0
5	Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)]	100.0	0.0	90.0	10.0	50.0	50.0
6	[Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak	100.0	0.0	30.0	75.0	0.0	100.0
	F_3 hybrids						
7	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 1)	100.0	0.0	80.0	20.0	50.0	50.0
8	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 2)	100.0	0.0	70.0	30.0	90.0	10.0
9	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 3)	100.0	0.0	70.0	30.0	60.0	40.0
10	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 4)	100.0	0.0	0.0	100.0	50.0	50.0
11	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 1)	100.0	0.0	50.0	50.0	55.0	45.0
12	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 2)	100.0	0.0	66.7	33.3	80.0	20.0
13	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 3)	100.0	0.0	90.0	10.0	50.0	50.0
14	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 4)	100.0	0.0	90.0	10.0	30.0	70.0
	F_3B_1C backcross hybrids						
15	Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] (Family 1)	100.0	0.0	25.0	75.0	0.0	100.0
16	Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] (Family 2)	100.0	0.0	95.0	5.0	0.0	100.0
17	Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] (Family 3)	100.0	0.0	50.0	50.0	0.0	100.0
18	Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] (Family 4)	100.0	0.0	0.0	100.0	50.0	50.0
19	[Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 (Family 1)	100.0	0.0	0.0	100.0	0.0	100.0
20	[Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 (Family 2)	100.0	0.0	0.0	100.0	95.0	5.0
21	[Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 (Family 3)	100.0	0.0	66.7	33.3	95.0	5.0
22	[Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 (Family 4)	100.0	0.0	96.0	4.0	96.0	4.0

Continued

23	Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] (Family 1)	100.0	0.0	25.0	75.0	25.0	75.0
24	Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] (Family 2)	100.0	0.0	33.3	66.7	95.0	5.0
25	Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] (Family 3)	100.0	0.0	96.0	4.0	95.0	5.0
26	Kelajak × [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] (Family 4)	100.0	0.0	50.0	50.0	95.0	5.0
27	[Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak (Family 1)	100.0	0.0	50.0	50.0	25.0	75.0
28	[Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak (Family 2)	100.0	0.0	25.0	75.0	25.0	75.0
29	[Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak (Family 3)	100.0	0.0	0.0	100.0	0.0	100.0
30	[Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak (Family 4)	100.0	0.0	95.0	5.0	0.0	100.0
	F_4 hybrids						
31	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 1)	100.0	0.0	70.0	30.0	70.0	30.0
32	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 2)	100.0	0.0	95.0	5.0	80.0	20.0
33	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 3)	100.0	0.0	95.0	5.0	90.0	10.0
34	Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) (Family 4)	100.0	0.0	70.0	30.0	70.0	30.0
35	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 1)	100.0	0.0	50.0	50.0	60.0	40.0
36	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 2)	100.0	0.0	90.0	10.0	90.0	10.0
37	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 3)	100.0	0.0	95.0	5.0	80.0	20.0
38	Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*) (Family 4)	100.0	0.0	96.0	4.0	96.0	4.0

G.australe)], [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak the *Verticillium dahliae* did not show any suture toxic effects. It should be noted, however, that F_2B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 coincidental bicuspid combination *Fusarium oxysporum* f.sp. *vasinfectum* has a tolerance of 25.0% (**Figure 3**).

Also, F_2B_1C Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)], [Kelajak × (ssp. *nanking* (with white fiber) × *G. nelsonii*)] × Kelajak in the future backcross hybrid combinations *Fusarium oxysporum* f.sp. *vaginfectum* the effect of mycotoxins separated from the micromycetes was recorded in the level of high durability (100.0% of the seeds did not grow).

The effect of mycotoxins on the yield of plant seeds separated from micromieces by the family of Feminine Combine "Family 1", "Family 3" *Verticillium dahliae, Fusarium oxysporum* f.sp. *vasinfectum* with combination of hybrid combination of F_3C Наманган 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) low and moderately resistant position. The F_3C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) hybrid combination of "Family 4" *Verticillium dahliae* mycotoxins has shown strong resistance. *Fusarium oxysporum* f.sp. *vasinfectum* has a tolerance of 50.0%. F_3C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) in "Family 2", *Verticillium dahliae* tolerance was 70.0%, and *Fusarium oxysporum* f.sp. *vasinfectum* caused mycotoxins by 90.0% (**Figure 4**). The fertility of the seeds was 50.0% - 66.7% due to the effect of mycotoxin of *Verticillium* on the family of F_3C Kelajak × (ssp. *nanking* (with white

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

Figure 3. F_2B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77.

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

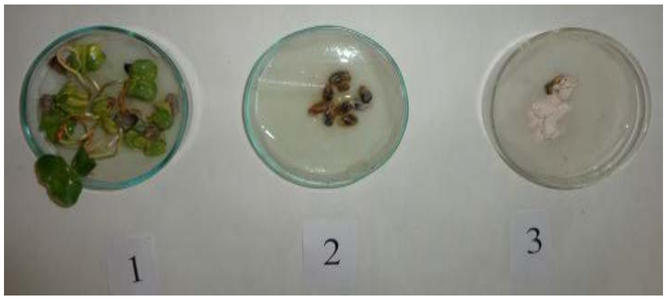
Figure 4. F_3C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) "Family 2".

fiber) × *G.nelsonii*) "Family 1", "Family 2". The F_3C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*) "Family 3" and "Family 4" were found to be 90.0% stronger than the *Verticillium dahliae* mycotoxin effect.

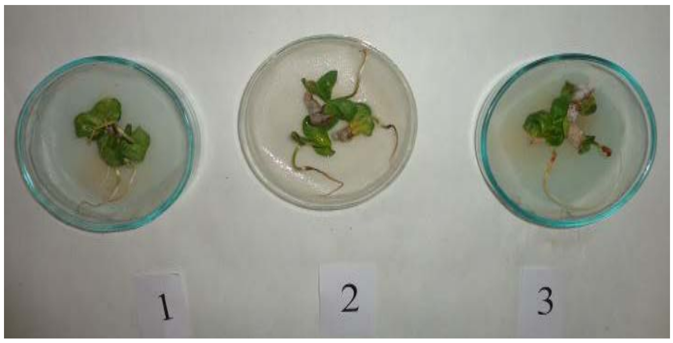
The F_3C Kelajak × (ssp. *nanking* (white fiber) × *G.nelsonii*) was found to be moderately resistant to *Fusarium oxysporum* f.sp. *vasinfectum* in "Family 1", "Family 3" combination. This hybrid was recorded in the "Family 2" and "Family 4" combinations as relatively high (80,0%).

Fumigation of germs of plant seeds was 95.0% due to mycotoxins separated from the *Verticillium dahliae* microscope in "Family 2" of backcross hybrid combinations of F_3B_1C Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G.australe*)] (**Figure 5(a)**). F_3B_1C Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G.australe*)] in family "Family 1", "Family 3", *Verticillium dahliae* tolerance was 25.0% - 50.0% mycotoxin resistance was found in "Family 4". Foci of uptake of seeds under the influence of mycotoxins separated from the *Fusarium oxysporum* f.sp. *vasinfectum* microscopy of "Family 4" was found to be 50.0% in the backcross hybrid combination of F_3B_1C Namangan 77 × [Namangan 77 × (*ssp. obtusifolium var. indicum* × *G.australe*)].

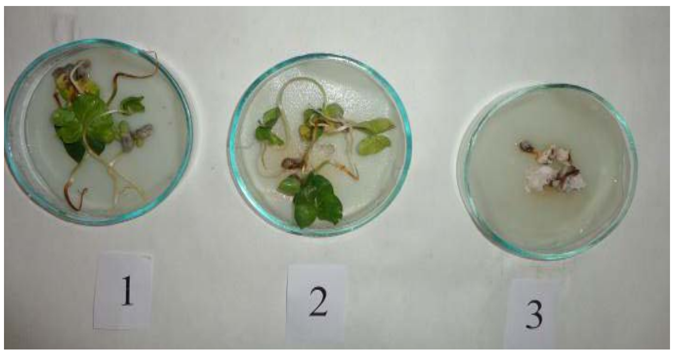
(a)



(b)



(c)



(d)

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

Figure 5. Impetuosity for mycotoxin backcross hybrid combinations. (a) F_3B_1C Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] "Family 2"; (b) F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 "Family 1"; (c) F_3B_1C Kelajaк × [Kelajak × (ssp. *nanking* (ok толали) × *G. nelsonii*)] "Family 3"; (d) F_3B_1C [Kelajaк × (ssp. *nanking* (ok толали) × *G. nelsonii*)] × Kelajaк "Family 4".

However, *Fusarium oxysporum* f.sp. *vasinfectum* was unstable in "Family 1", "Family 2" and "Family 3". F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe)*] × Namangan 77 was presented in the strong "Family 1", "Family 2" in *Verticillium dahliae*'*s* strong resistance. In the "Family 3", *Verticillium dahliae* was found to be less tolerant (33.3% of seeds did not grow) in the backcross hybrid combination of F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77. F_3B_1C [Namangan 77 × (ssp. *obtusifolium var indicum* × *G. australe*)] × Namangan 77 combustion combination "Family 4" *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum* the degree of resistance of mycotoxins separated from micromycetes to germliness of plant seeds. F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 was found to be high in tolerance to *Fusarium oxysporum* f.sp. *vasinfectum* in "Family 2" and "Family 3" backcross hybrid combination. F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 backcross hybrid combination with "Family 1" *Fusarium oxysporum* f.sp. *vasinfectum* was shown to be strong (**Figure 5(b)**).

F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] as a result of mycotoxins isolated from the *Verticillium dahliae* microcrycine in the family "Family 1", "Family 2", "Family 4" 25.0% - 50.0% of seeds were sown. F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] was found to be high in tolerance to the *Verticillium dahliae* in "Family 3" (**Figure 5(c)**). F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] as a result of the effects of mycotoxins separated from *Fusarium oxysporum* f.sp. *vasinfectum* in "Family 2", "Family 3", "Family 4" 95.0% of seeds were sown. It was found that 75.0% of the seeds did not grow due to F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] with the effect of the combination of bacterial hybrid "Family 1" *Fusarium oxysporum* f.sp. *vasinfectum*. F_3B_1C [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] In the family "Family 1" and "Family 2" combination of future bacterial bacteria, *Verticillium dahliae* was found to be 25.0% - 50.0%, And in "Family 3", it was noted that seeds were generally unchanged. F_3B_1C [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*)] in "Family 4", the combination of anticoagulant hybridis with *Verticillium dahliae* was found to be highly tolerant (**Figure 5(d)**). F_3B_1C [Kelajak (ssp. *nanking* (white fiber) *G.nelsonii*)] × Kelajak backcross hybrid combinations *Fusarium oxysporum* f.sp. *vasinfectum* mycotoxins are resistant. In particular, "Family 1" and "Family 2" were affected by mycotoxins 25.0%, "Family 3" and "Family 4" were strongly endangered.

The F_4C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G.australe*) was recorded in the "Family 2" and "Family 3" combination of hybrid combination with *Verticillium dahliae* high reliability (95.0%). As a result of mycotoxins isolated from *Fusarium oxysporum* f.sp. *vasinfectum* micro metracycry, 80.0% - 90.0% of the seeds were found (**Figure 6**). F_4C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) resulted in 70.0% of mycotoxins isolated

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

Figure 6. F_4C Namangan 77 × (*ssp. obtusifolium var. indicum* × *G. australe*) "Family 2".

from microparticles microcrystals "Family 1" and "Family 4" in *Verticillium dahliae* and *Fusarium oxysporum* f.sp. *vasinfectum*, seeds were sown. F_4C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*) was found to be moderately resistant to the *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum* mycotoxins in the "Family 1" combination of hybrids.

The F_4C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*) was recorded in *Verticillium dahliae* and *Fusarium oxysporum* f.sp. *vasinfectum* at 90.0% in family "Family 2". F_4C Kelajak × (*ssp. nanking* (white fiber) *G. nelsonii*) "Family 3" showed that 95.0% seeds were affected by the *Verticillium dahliae* mycotoxin effect. As a result of the effects of mycotoxins separated from the *Fusarium oxysporum* f.sp. *vasinfectum* microcrysta, 80.0% were sown. The F_4C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*) hybrid combination was found to be 96.0% in *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum* with a combination of hybrid combination (**Figure 7**).

Thus, according to the analysis of the degree of effectiveness of mycotoxin sulphide seeds on microorganisms of *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum microscitres*, new recombinant hybrid forms were found to be comparable to F_2C hybrid combination in F_4C hybrid combination combinations, *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum*, how much F_4C demonstrates the presence of polymeric nature of the dominant alleles of the genes involved in the growth of the gene in the generation. F_3B_1C Namangan 77 × [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] "Family 2", F_3B_1C [Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii)*] × Kelajak "Family 1", F_4C Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*) "Family 2", "Family 3", F_4C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*) "Family 3" *Verticillium dahliae* micromoxetine mycotoxins tolerance. F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G. australe*)] × Namangan 77 "Family 2", "Family 3", F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*) "Family 2", "Family 4", F_4C Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*)] mycotoxins of *Fusarium oxysporum* f.sp. *vasinfectum* microscopy in "Family 2"

Explanation: 1. Control; 2. *Verticillium dahliae*; 3. *Fusarium oxysporum* f.sp. *vasinfectum*

Figure 7. F_4C Kelajaк × (*ssp. nanking* (white fiber) × *G.nelsonii*) "Family 4".

are strongly resistant to germliness of plant seeds was observed. F_3B_1C [Namangan 77 × (ssp. *obtusifolium var. indicum* × *G.australe*)] × Namangan 77 "Family 4", F_3B_1C Kelajak × [Kelajak × (ssp. *nanking* (white fiber) *G. nelsonii*)] "Family 3", F_4C Kelajak × (ssp. *nanking* (white fiber) × *G. nelsonii*) hybrid combinations *Verticillium dahliae*, *Fusarium oxysporum* f.sp. *vasinfectum*, have been found to have high rates of mycotoxin susceptibility to microbial seeds. The new artificial complicated hybrid forms combine the potential for resistance to the disease in their Kario-Plazma on agricultural diseases, making a huge contribution to the selection of new varieties and the effectiveness of selection as a result of the use of genetic selective research in genetic-selective studies on the improvement of economic characteristics.

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