

THE RESISTANCE ESTIMATION OF SOME VARIETY'S AND HYBRIDS OF *VITIS VINIFERA* L. AGAINST THE ATTACK PRODUCED BY *BOTRYOTINIA FUCKELIANA* (DE BARY) WHETZEL PATHOGEN AGENT

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The cultivation of the resistant varieties has an important contribution in reducing the number of treatments and also the cost with phytosanitary protection of the grape vine.

In 2008 year there were made observations regarding the grape vine varieties resistance against the attack of Botryotinia fuckeliana fungus, in the U.S.A.M.V. ampelographyc collection from the "V. Adamachi" Iași farm.

According with agro biological descriptors for grape vine variety's, proposed by O.I.V. (1993) and mentioned by Țârdea C. and Liliana Rotaru (2003), the resistance level of grape vine against gray mold can be made appreciating the attack level on leaves and grapes.

The leaves are observed after flowering and the grape observations are made after harvest, using for that an interpretation scale with marks from 1 to 9, according with attack level which is between 0 and 100%.

The varieties evaluation regarding their resistance against Botryotinia fuckeliana has been made examining the grapes before harvest and giving marks according with the existent level of attack.

After the experience accomplish it has been made an actualization regarding the resistance of some varieties and hybrids of Vitis vinifera L. to the attack of the Botryotinia fuckeliana fungus in the global heating perspective.

Between grapes varieties or hybrids for consumption, the best results were presented by the varieties: Coarnă albă, Moldova, Coarnă neagră and Roz românesc, which have registered an reduced level of attack, under 5%.

Between the varieties or hybrids for wine, there has been pointed out the following: Băbească neagră, Merlot, Andre and Negru de Drăgășani, which have registered a reduced level of attack, under 10%.

The most sensitive variety was Galbenă de Odobesti, which recorded the highest degree of attack (76.72%), followed by varieties: Frâncușă, Grasă de Cotnari, Busuioacă de Bohotin and Cabernet Sauvignon, which had a degree of attack over 50%.

Key words: resistance, varieties, hybrids, Botryotinia fuckeliana

Assessing the varieties and hybrids behavior of grape vine against grey mold has been achieved among others by Torje D. and co. in 1980 and 1984, mention by Isabela Ilișescu - 2004. According to these studies, the most resistant varieties over the attack of *Botryotinia fuckeliana* fungus are as follows: Coarnă neagră tămâioasă; Coarnă neagră selecționată; Victoria; Timpurie de Cluj; Cabernet Sauvignon 7 Dg.; Cabernet Sauvignon 4 Iș. and Aromat de Iași.

MATERIAL AND METHOD

For appreciating the resistance level of grape vine against gray mold in the ampelographic collection of USAMV Iasi, was used the scale proposed by O.I.V. (1993) and mentioned by Țârdea C. and Liliana Rotaru 2003 (table 1).

Table 1
The resistance level of grapes against *Botryotinia fuckeliana* fungus (O.I.V. - 1993)

Grapes resistance of gray mold attack	The expression nature	The attack level (AL%)
Very poor	1	>75%
	2	50 - 75%
Poor (all grapes attacked, the grapes are fall)	3	40 – 50%
	4	25 – 40%
Middle (up to 20% of the berries are peaked or rotting)	5	15 – 25%
	6	10 – 15%
Good (only a few berries are peaked or rotting)	7	5 – 10%
	8	1 -5%
Very good	9	< 1%

RESULTS AND DISCUSIONS

In 2008, there were made observations regarding the grape vine varieties resistance against the attack of *Botryotinia fuckeliana* fungus, in the U.S.A.M.V. ampelographic collection from the “V. Adamachi” Iași farm.

The varieties evaluation regarding their resistance against *Botryotinia fuckeliana* had been made by giving marks according to the existent level of attack, as in table 2.

Table 2
The grape vine varieties evaluation regarding their resistance against *Botryotinia fuckeliana*, in ampelographic collection from U.S.A.M.V. Iași

Varieties/hybrids for consumption grapes	AL%	The expression nature	The resistance of varieties studied
Soiuri/hibridzi pentru struguri de masa			
Chasslas dore	36,26	4	S
Cetățuia	11,14	6	MR
Coarnă albă	3,96	8	R
Muscat de Hamburg	6,22	7	R
Regina viilor	16,10	5	MR

Varieties/hybrids for winy grapes	AL%	The expression nature	The resistance of varieties studied
Moldova	1,25	8	R
Napoca	7,47	7	R
Afuz ali	9,75	7	R
Coarnă neagră	3,84	8	R
Ceauș	28,39	4	S
Perlă de Csaba	34,18	4	S
Roz românesc	3,32	8	R
Pance D'Espagne	9,07	7	R
Bicane	29,41	4	S
Galbenă de Odobești	76,72	1	FS
Aligote	34,66	4	S
Armaș	45,51	3	S
Fetească albă	39,50	4	S
Frâncușă	55,54	2	FS
Grasă de Cotnari	57,61	2	FS
Pinot gris	24,42	5	MR
Zghihară de Huși	26,17	4	S
Chardonnay	46,03	3	S
Fetească regală	32,41	4	S
Furmint	38,19	4	S
Muscadele	31,12	4	S
Băbească neagră	3,23	8	R
Busuioacă de Bohotin	52,86	2	FS
Tămâioasă românească	33,19	4	S
Muscat Ottonel	19,34	5	MR
Traminer alb	22,85	4	S
Traminer roz	20,18	5	MR
Riesling italian	17,60	5	MR
Cabernet Sauvignon	60,34	2	FS
Fetească neagră	28,75	4	S
Merlot	9,96	7	R
Pinot Noir	25,01	4	S
Bastard de Magaraci	27,96	4	S
Blauerzweigelt	15,16	5	MR
Negru aromat	11,84	6	MR
Andre	6,04	7	R
Novac	21,22	5	MR
Negru de Drăgășani	8,33	7	R
Furmint de Miniș	28,74	4	S

VR	very resistant	Without attack or mark 9
R	resistant	La% = 1 – 10 or marks 7, 8
MR	midle resistant	La% = 10 – 25 or marks 5, 6
S	sensible	La% = 25 – 50 or marks 3, 4
FS	very sensible	La% > 50 or marks 1, 2

CONCLUSIONS

The varieties evaluation regarding their resistance against *Botryotinia fuckeliana* has been made examining the grapes before harvest and giving marks according with the existent level of attack.

After the accomplishment of experience it has been made an actualization regarding the resistance of some varieties and hybrids of *Vitis vinifera L.* to the attack of the *Botryotinia fuckeliana* fungus in the global heating perspective.

Between the varieties or hybrids of grapes for consumption, the best results were presented by the varieties: Coarnă albă, Moldova, Coarnă neagră and Roz românesc, which have registered an reduced level of attack, under 5%.

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BIBLIOGRAPHY

1. Galet, P., 1991 – *Précis de Pathologie viticole* – Montpellier, Franța.
2. Iacob, Viorica și colab., 2000 – *Fitopatologie horticolă* – Editura Ion Ionescu de la Brad – Iași.
3. Ștefan, Aurora, Liliana, 2001 – *Botrytis cinerea – agentul etiologic al putregaiului cenușiu al strugurilor. I. Parametrii biologici (Surse de nutriție)* A.N. I.C.P.P., Vol. XXXI.
4. Țârdea, Constantin, Rotaru, Liliana, 2003 – *Ampelografie - vol. I*. Editura Ion Ionescu de la Brad – Iași.