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GENOTYPE IDENTIFICATION OF ROSHNIK VARIETY

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ABSTRACT

Roshnik variety, is destined for drying variety, quality and standard features for export. Available in a large block of about 1200 ha area of Berat (Uznove) and 840 ha under cultur.This variety is at all for dry fig and autochthon. Berat is part climatic-Mediterranean zone field, which is characterized by mild winters, low rainfall and hot summers and dry. Before privatization the number tree has been about 200000 number trees, from this block is production 2500-3500 ton fig in year. About 70 – 75 % of this exported of dry, and other for inside consume. From this, 70000 trees are in Uznov block and 8000 tree are in Roshnik zones, name fig is zones name. Roshnik variety is exported mainly in Serbia, Montenegro, Bosnje, Slovakia, Kosovo state. The Roshnik variety is characterization for morphological characteristics and its genotypic, subject statistic or analysis and a molecular study. The correlation coefficient was analyzed for traits, dry matter, content sugar, acidity %, the content of vitamins in mg (100 g). It was analyzed that there are connections between dry matter and sugar content, dry matter and acidity, relationship between dry matter content and a factorial analysis of variance for the indicators of trunk diameter and height than the blocks of trees in Uznove / Berat. Turns out that the observed changes, if there are statistically validated. This indicates that the block in which trees is planted is the uniform view of fertility and traits of land. Through this we can recommend that the viscosity of the fig tree during the initial selection of material not affected by the variability between varieties but also can solve material within a single row. Even among the trees in the row did not change statistically verified or certified as environmental variability is genetic and he sits on the border.

Keywords: dry fig, block, genetic, economic, export.

1. INTRODUCTION

The fig Roshnik blocks in the district Uznove Beret. It is 150 m above sea level. Exposure from soil south. Slope 5%. Located farthest 1 km Osumi river bed and interchanges 50 m. Territory for districts is stripped of forests. Planting was made in the years 1953 to 1962. Distances planted are 7 as 6 m. Type of land is ash-brown.

From the latest data show that in the block Uznova roots are about 70,000, while the municipality of about 8,000 root Roshnikut. According to observations of the evaluation of specialists, not more than 40% of the number of plants is in good health.

Today, Uznove up to tons of dry fig, only from Roshnik variety produce is about 180 tons. Exported is about 300 tons mainly in countries such as Serbia, Montenegro, Slovakia, Kosovo,

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etc. The selling price ranges from 180 Albania money / kg for export and 150 / kg (10.5 Euro) .
Recent years many families in Uznova village are back produce of dry fig. Meetings with farmers and agro, disturbing problems arise that have prevented the cultivation, production manipulation fig. System changes have created new opportunities and chances, but and difficulties in management, marketing, finding new markets, etc... The pace of plantings in recent years has been low, going to the level of 1000 and Roshnik roots in Uznove. In the commune of Roshnikut have increasing trend. So from the root 250 in 2009, over 550 roots are planted in 2011 onwards is likely to be the roots of the fig added. All economic indicators data processed by many specialists, demonstrating that for the same conditions climatic - ground, fig comes with rentable compared with other fruit trees. Compared with some fruit trees in the same conditions climatic-ground, calculations are made for some of the most important economic indicators for 1 ha surfaces and concrete results: culture except cherry, fig derived from nearly 2 times the revenue compared with plum, 40-50% more than the vineyard and 20-30% more than the culture of Olive.

2. MATERIALS AND METHODS

Is performed in the block. Uznove / Berat.fig, are taken into study some phenotypes, were analyze some features according to the descriptor ... and became statistic their analysis, and molecular analysis. We analyzed phenotypic analysis of morphological data as tree height, thickness of trunk, leaf shapes, leaf traits, fruit shape, fruit color, cavity, the amount of seed, baking time, while molecular analysis extract is taken The leaf using AFLP and electrophorus system. Is determined and cooling purse is taken for molecular analysis in Bari Universities laboratory.

3. RESULTATES AND DISCUSSION

From a factorial analysis of variance for the mare indicators analyzed, it turns out that there are differences, but are not statistically validated. This shows that the block in which trees are planted salt is in the form of fertility and other land features. Through this we can recommend improvers not be affected by variability against varieteties but may choose material even within a single row. Even among trees in a row reliability cannot change statistically validated, genetic variability and therefore he is environmental lower thresholds. On the other hand observed genetic uniformity trees of the same variety. In addition trees of the same variety. In addition, there are differences due to genetic mutations or other reasons.
The analyze of AFLP founded in fig varieties showed a good genetic variability among germplasm of dry fig. At all genetic material is characterizated for other traits in order to establish a reference collection. Albania figs based on similarities and UPGMA clustering. For Roshnik variety don’t resulted similarity with other varieties, is unic of themselves sort, personal characteristics.
The method of processing this variety has been and remains the simplest of almost primitive. Harvesting is done by hand, paving below the tree or plastic raincoat. Fruits harvested in industrial processing for full ripening, drying fruits cottage overdone. Newly harvested fruits treated with sulphur gas, after disinfection dried in the sun by placing the wooden harrows,

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plastic as are selected by standard, boiled in water hot..,dried, wrapped in chains, packages, etc

From statistical analyse according indexs biomorphological anf fenologhical result link positive correlation for weight fruit and production tree. For weight of fruit r is = 0.015 and for production r = 0.154. For weight link is strong when for production link is soft. The weight and production is indexs more important quantitative but more value for this vatiety because is for dry industry fig, industry and mainly export. The quantitative indexs is necessity for economic region. Between the content of the dry matter and the sugar content results in a weak negative link. The increase in the content of dry matter is associated with a decrease in sugar content. In general, it is difficult for an enhancer to improve two features immediately when the features are negatively related to each other. In our case, the connection is weak and we can recommend the phytochemical improvements that, while using the germplasm, can at the same time select the expected effects for these features. Binding through dry matter content and acidity is negative. This connection, we can say that there is a need for these two features for genetic improvement. As for the dry matter and vitamins C there is a weak link. The value of the correlation coefficient is -0.04 and that the relation is still inadequate. Also, these features may need genetic improvement. The positive correlation in this correlation is observed between acidity and vitamins. Increasing the level of acidity improvement can be associated at the same time as the level of improvement in vitamin content increases. The positive relationship between these features is a good opportunity for the enhancers of a feature by benefiting from the improvement of the other

Fig no 1: Correlation between weight and production

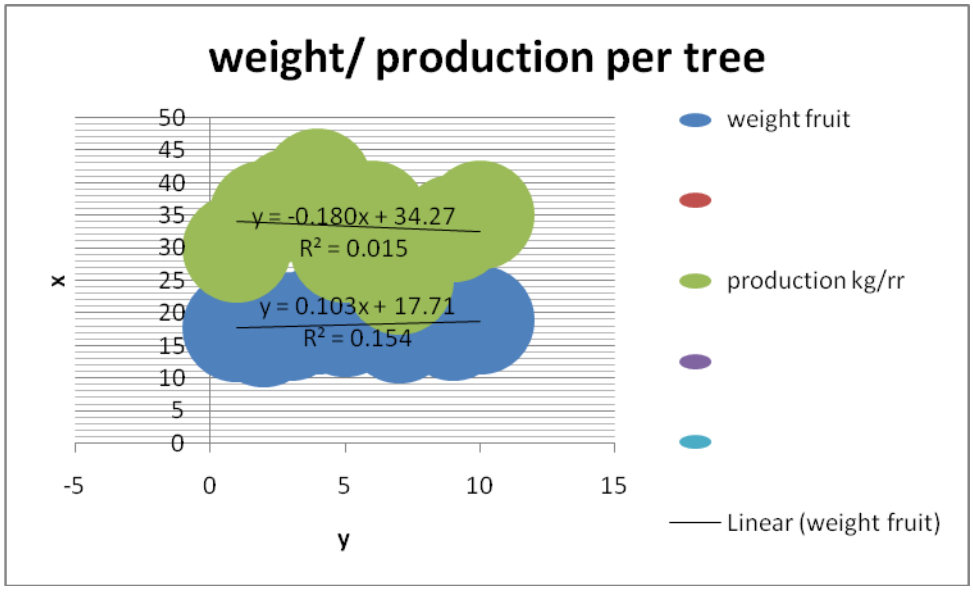

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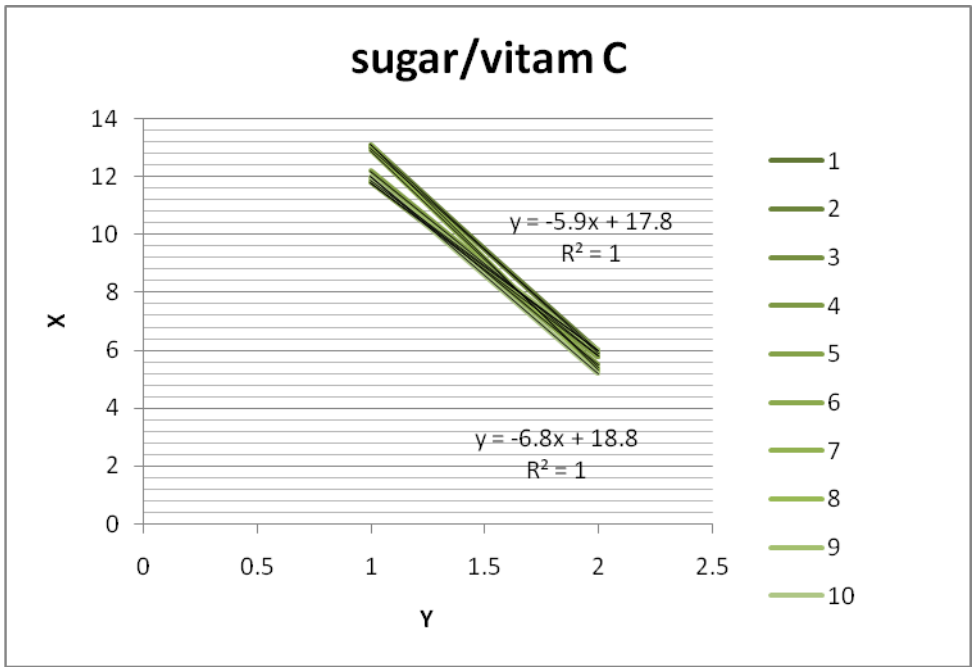
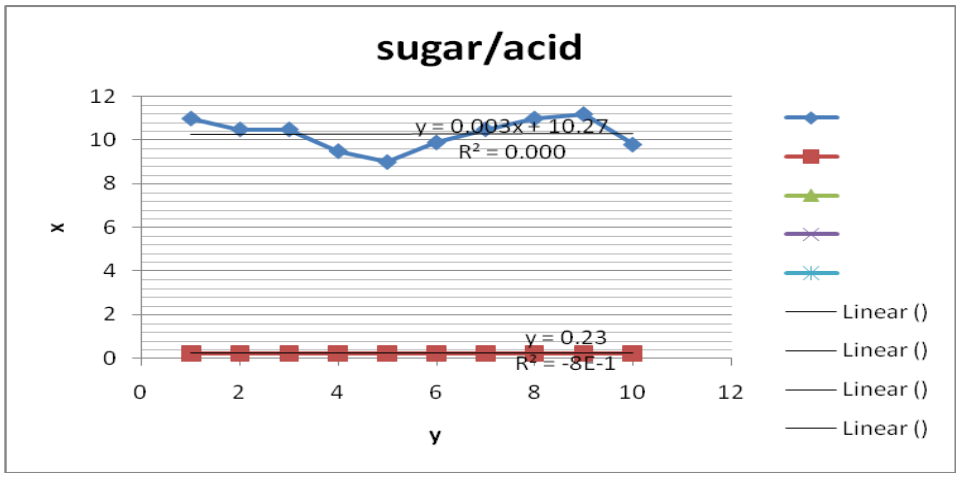
Fig no 2: Correlation between sugar and vit c



The link correlation between sugar and vitamine C is positive link and is in increase, is positive link.

Fig no 3: Correlation between sugar and acid



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One interesant fact is link weak between sugar and acidity. This link is weak but is important to taken in consiterate from improvement research.

Within the fig block roshnik genotypes classified first quality, second quality and excellent quality. Quality first is 3-3.5 cm diameter, bold colors, with damage to the skin, the second quality are the same size with small injuries.

Besides the dry fig is the leading product in the market, households and processing entities in the region of fig "Roshnik" also produced marmalades, jam, brandy, and sweet. Genotype morphological characteristics are very important for the processing industry. For tradition reason this product (dry fig) is exported and continues to export. Graphic of export has increase and reduction but in future will increase, Becouse is natural resource of this region.

Table no1 : Parameters of different fig genotypes

No	Diameter of tree cm	Height of tree cm	Habit tat tree	Leng th leave	Wid th leave	Form leaves	No leaves for	Type leave/l obe	Resista nt /transp ort	Wei ght fruit	Dry natur al time/ day
1	37	60	C	18	17	2	8-12	5	Height	13.2	14
2	26	55	C	23	19	2	8-12	5	height	16.5	14
3	29	68	C	29	33	2	8-12	5	height	16.3	14
4	34	74	C	22	18	2	8-12	5	height	14.2	14
5	26	68	C	21	17	2	8-12	5	height	18	14
6	22	70	C	20	17	2	8-12	5	height	17.2	14
7	19	70	C	26	12	2	8-12	5	height	14.7	14
8	32	60	C	20	15	2	8-12	5	height	16.5	14
9	24	80	C	24	22	2	8-12	5	height	17.1	14
10	18	70	C	18	16	2	8-12	5	height	14.6	14

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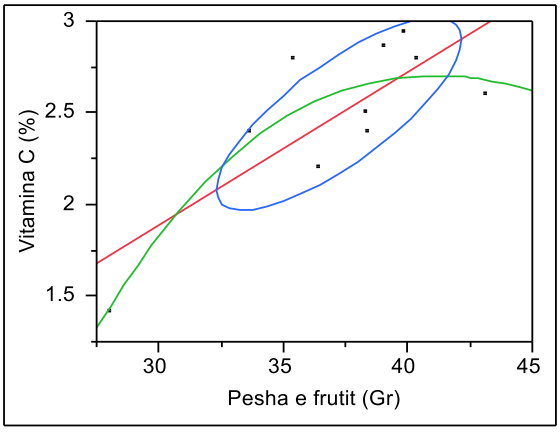
Fig no 2: Bivarate Fit of Sugar (%)By Weight of Fruit (Gr)

RSquare	0.485977
RSquare Adj	0.339114
Root Mean Square Error	0.903029
Mean of Response	11.45
Observations (or Sum Wgts)	10

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	5.396777	2.69839	3.3090
Error	7	5.708223	0.81546	Prob > F
C. Total	9	11.105000		0.0974

Fig no 2: Bivarate Fit of Sugar (%)By Weight of Fruit (Gr)



Polynomial Fit Degree=2

SUGARi (%) = 15.831037 - 0.1024391*Weight of fruit (Gr) - 0.035778*(Weight fruit(Gr)-37.23)^2

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Summary of Fit

RSquare	0.485977
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Observations (or Sum Wgts)	10

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	5.396777	2.69839	3.3090
Error	7	5.708223	0.81546	**Prob > F**
C. Total	9	11.105000		0.0974

Polynomial Fit Degree=3

Vitamin C (%) = 0.8075137 + 0.0485592*weight fruit (Gr) - 0.0072559*(weight fruit (Gr)-37.23)^2 + 0.0001427*(weight fruit (Gr)-37.23)^3

Summary of Fit

RSquare	0.757579
RSquare Adj	0.636368
Root Mean Square Error	0.26885
Mean of Response	2.492
Observations (or Sum Wgts)	10

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Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	1.3552780	0.451759	6.2501
Error	6	0.4336820	0.072280	**Prob > F**
C. Total	9	1.7889600		0.0282*

Parameter Estimates

Term		Estimate	Std Error	t Ratio	Prob>|t|
Intercept		0.8075137	1.891074	0.43	0.6843
Weight of fruit(Gr)		0.0485592	0.05051	0.96	0.3735
(Weight of fruit (Gr)-37.23)^2		-0.007256	0.006577	-1.10	0.3122
(Weight of fruit (Gr)-37.23)^3		0.0001427	0.001116	0.13	0.9024

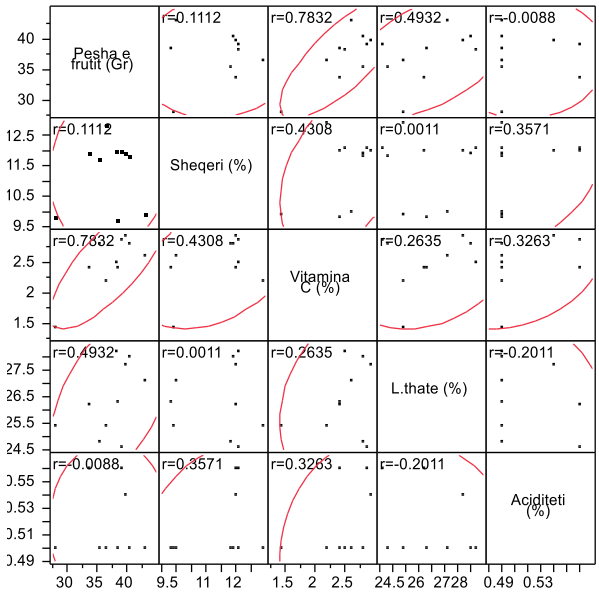
The correlations are estimated by REML method.
The correlation between sugar and vitamin c are positive link and strong. When coorelation between sugar and aciditeti is negative, the correlation between LD and S is strong and positive.

Partial Corr

	Pesha e frutit (Gr)	Sheqeri (%)	Vitamina C (%)	L.thate (%)	Aciditeti (%)
Weigh of fruit(Gr)	.	-0.3418	0.8311	0.4029	-0.3017
Sugar (%)	-0.3418	.	0.4678	0.0917	0.0998
Vitamin C (%)	0.8311	0.4678	.	-0.1561	0.4026
L.dry(%)	0.4029	0.0917	-0.1561	.	-0.1351
Acidity (%)	-0.3017	0.0998	0.4026	-0.1351	.

partialed with respect to all other variables

Scatterplot Matrix



4.CONCLUSION

Genotype is the genetic, manufacturing and trading. The fig Roshnik block is typical of the area; there is a harmonization of indicators climatic-terrestrial - variety. This block must be preserved and continuously regenerated to pass on generations was inherited as a national and monetary value. Using a traditional method with solar but in feature is necessary to application contemporary methods such is artificial dry.

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