Research on identification and enhancement of local wine germplasm in Buzias-Silagiu, area in order to achieve biodiversity conservation

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Abstract

Research aimed local biotypes and varieties from Buzias Silagiu vineyard area planted in the area but also in courts and public gardens. Were identified and analyzed biotypes and local varieties, grouped in lines of production. Analysis was done with varieties compared Chasselas dore and Feteasca Regala who are mostly spread in the area. We intended to characterize these varieties from ampelographical, phisico-chemical and technological point of view. In the research were noted by some special qualities some local biotypes, among which we mention: Marele Roz de Buzias, Raschirata alba, Frumoasa alba de Buzias, Ruginiu de Silagiu, Alb Aripat de Silagiu etc.

Key words

Biotypes, local varieties, Buzias Silagiu, germplasm.

Local varieties represented and still represent a valuable genetic patrimony, which, due to neglect and lack of responsibility of ante and post revolutionary viticulture is in danger of erosion.

In the last few years world viticultural research tendency but also of the Romanian one is to give the right recognition to local varieties in order to obtain qualitative, typical and authentic products, so that their research has to become fundamental. Rediscovering, research, and promote of the local varieties contribute to scientific viticulture enriching and viticultural development practice.

Biological Material and Method

Research has been conducted during 2007 and 2008 Center Buzias-vineyard Silagiu. It is situated in Timis County, near the town and includes Buzias Hill Silagiuului and Bacovia. The main direction of production of this centre aromatic and white wine of high quality (predominant varieties are Riesling Italian, Sauvignon and Muscat Ottonel.). Are produced also red wines of high quality from the following varieties: Cabernet Sauvignon, Pinot Noir, Merlot and Burgund.

Table grapes varieties assortment is limited to those which have times of maturation III and IV. Were aimed varieties and local biotypes of the area in order to identify and capitalize local viticultural germ plasma, this might constitute an important and unlimited source for the obtaining of some authentic products.

For determining varieties and local cultivars name we used many criteria (traditional name in the area, initials of the settlements which were discovered, the initials of streets that were discovered, the prevalent technological and ampelographical characteristics,etc.).

Ampelographical description of the varieties was made in view of the main characters of the leaf, grape and berry. Were carried out observations and measurements of sugar content, and acidity and glucoacidimetric index was calculated. For a more precise interpretation, the results were compared with two witness varieties Chasselas Dore and Feteasca Regala, varieties with the highest prevalence in the area. From the amount of identified and analyzed cultivars were incorporated as interesting for practice and viticultural research a number of 13 cultivars which acquire specific features of table grapes varieties , 16 cultivars of varieties with specific features for the wine varieties and 17 cultivars which have mixed features.

Results and Discussions

For a brief presentation of the ampelographical characteristics we appeal to the presentation of the table with reference only to the most important ampelographic descriptors (Tables 1-3), gathering varieties on production lines. Some local varieties and biotypes shown large grapes, with a particular aspect, which, in the case of table varieties is a great advantage because the majority of consumer preferences for this type of grape. From this point of view is remarkable: Coarna visinie, Marele roz de Buzias, Raschirata alba, Frumoasa alba de Buzias, Regina viei.
Table 1

Ampelographic description of table grape varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>Leaf</th>
<th>Grape</th>
<th>Berry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victorita de Silagiu</td>
<td>Small pentalobed, round-kidney shape</td>
<td>Middle, conical, with rare berries</td>
<td>Elongate-ovoid, medium to large, skin yellowish-green, 2-4 seeds</td>
</tr>
<tr>
<td>Coarnă vișinie de Silagiu</td>
<td>Middle, orbicular, whole</td>
<td>Large to extra large high cilindro-conical, with rare berries</td>
<td>Medium, oblong, ovoid, with hooked tip, leather-pink sour cherries, 2 seeds</td>
</tr>
<tr>
<td>Verde cu boabe rare</td>
<td>Medium, round to the arrow-headed, pentalobed</td>
<td>Medium cilindroconic, with rare berries</td>
<td>Medium to large, ovoid, thick skin, green, with fine bloom, 3 seeds</td>
</tr>
<tr>
<td>Negru vinețiu de Silagiu</td>
<td>Medium, round, pentalobed</td>
<td>Medium, cilindroconical, lax branches, with rare berries</td>
<td>Medium, oval, bluish-black skin, containing 2-4 seeds</td>
</tr>
<tr>
<td>Marele roz de Buziaș</td>
<td>Medium to small, round, pentalobed</td>
<td>High cilindro-conical, often grain, uneven in size and color</td>
<td>Medium to small, oval, thin skin, green and pink, slightly crap, 1-2 seeds</td>
</tr>
<tr>
<td>Moldovei de Buziaș</td>
<td>Middle, heart shape, whole</td>
<td>Large to high cilindroconical, sometimes with wing, with rare berries</td>
<td>Large to very large, ovoid, skin thick, rigid, black-blue, bloomed, 2 large seeds</td>
</tr>
<tr>
<td>Galben rămuros de Buziaș</td>
<td>Middle, arrow-headed, easy pentalobed with pointed teeth</td>
<td>Middle to large, ramose, cilindro-conical with very rare berries</td>
<td>Large, cylindrical, skin thin, elastic, translucent, greenish-yellow, the middle is slight bit of flavor, 1 seed</td>
</tr>
<tr>
<td>Crocant de Șaguna</td>
<td>Large, whole, kidney shape with trends of tri or pentalobie</td>
<td>Large, cilindro-tapered wing, with rare berries</td>
<td>Large, oval, elastic skin, black-blue, covered with bloom, 2 seeds</td>
</tr>
<tr>
<td>Alb aripat de Silagiu</td>
<td>Large, arrow-headed, easy pentalobed with pointed teeth, mucronat</td>
<td>Medium, cilindro-conical, with rare berries</td>
<td>Large, elliptical, greenish-yellow skin, rigid, covered with bloom, 2-4 seeds</td>
</tr>
<tr>
<td>Râșchirată albă</td>
<td>Medium, almost full, with pentalobic trends, highlighted by weak sinuses with leaf sinus as a brace</td>
<td>High ramose, lax</td>
<td>Large, oval, greenish-yellow, skin thin, elastic, 1-2 seeds</td>
</tr>
<tr>
<td>Roz bătut de Silagiu</td>
<td>Middle, pentalobed, heart shape</td>
<td>Large cilindro-conical, with hooked tip, the berry are arranged as if are distorted</td>
<td>Uneven in size, greenish-pink skin, thick, elastic, with bloom, rudimentary seeds</td>
</tr>
<tr>
<td>Regina viei</td>
<td>Small arrow-headed, pentalobed with little obvious sinuses</td>
<td>Large, conical, with ramifications for the very basic developed berries rarely placed</td>
<td>Spherical, irregular in size, skin thick, golden-yellow, translucent, rudimentary seeds</td>
</tr>
<tr>
<td>Frumoasă albă de Buziaș</td>
<td>Middle almost round, pentalobed</td>
<td>Large, conical, with ramifications very developed berries rarely placed</td>
<td>Uneven in size and degree of coloration, skin thin, elastic, pale greenish-yellow to golden-yellow, 1-2 seeds</td>
</tr>
</tbody>
</table>

Technological and physico-chemical characteristics of the cultivars are presented separately on the lines of production: varieties of grapes for fresh consumption, types with grapes for fresh consumption and for wine and grape varieties for wine production. For edification results are compared with varieties: Chasselas dore, Feteasca Regala and Cabernet Sauvignon.

Besides the commercial aspect, very important for the species for table are taste qualities. From this point of view, most varieties are noted by a balance, however being remarqued the varieties: Verde cu boabe rare, Marele roz de Buzias, Crocant de saguna, Frumoasa alba de buzias.

As regards the sugar content are notable varieties: Galben rămuros de Buzias with rare berries, Moldovei de Buzias and Crocant de Saguna. On the opposite side are the varieties: Regina viei, Frumoasa alba de Buzias and Roz bătut de Buzias, who have less sugar compared with witness Chasselas dore.
## Table 2
### Ampelographic description of the wine grapes varieties

<table>
<thead>
<tr>
<th>Variety/Biotype</th>
<th>Leaf</th>
<th>Grape</th>
<th>Berry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galben compact de Buziaş</td>
<td>Small to medium, hearted shape, pentalobed with small teeth, slightly mucronated</td>
<td>Small, cylindrical, often with beans placed before deformation, compact</td>
<td>Small to medium, spherical form, distorted. Skin yellowish green, thin, translucent. Paragraph pistilar obvious strengths. Contains 2 seeds.</td>
</tr>
<tr>
<td>Pintenat de Buziaş</td>
<td>Small, round, pentalobed, teeth very rare, mucronated.</td>
<td>Small, cylindrical, often berry topping.</td>
<td>Medium, sphaerical, slightly elongate. Skin is thin, yellow-green, translucent, covered with fine bloom, pistilar pointobvious. Contains 2-3 seeds</td>
</tr>
<tr>
<td>Roz cu aripioară de Buziaş</td>
<td>Large, arrow-headed, pentalobed with large teeth.</td>
<td>Small to middle-cilindro tapered , with rare berries, presents a more developed branch at the base</td>
<td>Small, oval-oblong. Skin pink, translucent, thin, covered with fine bloom , contains 2 seed</td>
</tr>
<tr>
<td>Pătrujarcă de Buziaş</td>
<td>Small to middle, easy orbicular, pentalobed.</td>
<td>Medium, tapered with tip slightly bent, put the beans very often to deformation.</td>
<td>Small to medium, inversely ovoid shape. Translucent skin, yellowish-green, under thick, pistilar obvious point.</td>
</tr>
<tr>
<td>Roz deformat de Buziaş</td>
<td>Small, almost kidney shaped, trilobed with tinsel teeth</td>
<td>Small, cilindro-conical with the tip slightly back, berry forces that distort it.</td>
<td>Small, spherical-shaped cake. Skin is thin, pink, green, covered with fine bloom.</td>
</tr>
<tr>
<td>Conul Şaguna de Buziaş</td>
<td>Medium to large, arrow-headed, pentalobed, mucronated.</td>
<td>Small to medium, conical, lax, with highly developed primary ramifications, berry topping rarely.</td>
<td>Small to medium, spherical. Skin is thin, greenish-yellow. Contains 2 seeds.</td>
</tr>
<tr>
<td>Fragă albă de Silagiu</td>
<td>Middle, arrow-headed, trilobated.</td>
<td>Small to very small, cylindrical, with beans placed under rare.</td>
<td>Small, spherical. Skin thick, hot, green-yellow, and covered with bloom. Contains 3 seeds.</td>
</tr>
<tr>
<td>Ruginiu de Silagiu</td>
<td>Medium to large, arrow-headed, pentalobed.</td>
<td>Medium wing sometimes with beans placed in the bunch.</td>
<td>Medium, spherical. Skin is elastic, golden yellow, medium thickness. Contains 2 seeds.</td>
</tr>
<tr>
<td>Roz de Buziaş</td>
<td>Middle, arrow-headed, pentalobată.</td>
<td>East, tapered berry topping often.</td>
<td>Small, spherical. Skin thin, pink, covered with bloom. Contains 1-2 small seeds.</td>
</tr>
<tr>
<td>Negru mic de Silagiu</td>
<td>Middle, pentalobed, arrow-headed.</td>
<td>Small, cylindrical, with the grain often placed under.</td>
<td>East sphere. Skin is black-blush, elastic, mostly bloomed.</td>
</tr>
<tr>
<td>Negru pruinat de Buziaş</td>
<td>Kidney shape, middle, pentalobed.</td>
<td>Small to medium, conical, with berries often placed one near another.</td>
<td>Small to medium, slightly oval. Skin is elastic, black aubergines, covered with dense bloom. Contains 4 seeds.</td>
</tr>
<tr>
<td>Roșu compact de Buziaş</td>
<td>Medium to large, arrow-headed, pentalobed.</td>
<td>Medium cilindro-conical, with trends of developing wings..</td>
<td>Medium, spherical. Skin is thick, elastic, red color remains greenish on the side without sun.</td>
</tr>
<tr>
<td>Negru aripat de Silagiu</td>
<td>Large to very large, round, whole, with teeth mucronated.</td>
<td>Medium, cilindro-tapered wing, the berry topping.</td>
<td>East at large, globular. Skin is thick, elastic, black-blue, covered with bloom. Contains 2 large seeds.</td>
</tr>
<tr>
<td>Roșietic de Silagiu</td>
<td>Small, round, arrow-headed, pentalobed.</td>
<td>Medium, cylindrical, with berries placed very often.</td>
<td>Medium spherical. Skin is pink, medium thickness, bloomed. Contains 1-2 seeds.</td>
</tr>
<tr>
<td>Roz pruinat de Buziaş</td>
<td>Small orbicular, whole.</td>
<td>Small to medium, cylindrical in shape, with many berries .</td>
<td>Small, spherical. Skin is thin, pink-blue, covered with bloom. Contains 3 small seeds.</td>
</tr>
<tr>
<td>Negru aromat de Buziaş</td>
<td>Large to very large, arrow-headed, with obvious mucron</td>
<td>East cilindro-tapered wing.</td>
<td>East sphere. Skin is black-blue, covered with bloom. Contains 2 large seeds.</td>
</tr>
</tbody>
</table>
## Table 3

**Ampelographic description of the mixed grapes varieties**

<table>
<thead>
<tr>
<th>Variety/Biotype</th>
<th>Leaf</th>
<th>Grape</th>
<th>Berry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alb aripat de Silagiu</td>
<td>Middle arrow-headed, have leafs polimorfism.</td>
<td>Middle cilindro-conical, with beans placed on rare bunch.</td>
<td>Medium, globose-ovoid, uneven in size and shape. Skin is yellow-rusty. Contain 1-2 seeds and present flavor bite.</td>
</tr>
<tr>
<td>Alb verzui de Silagiu</td>
<td>Middle, arrow-headed, or tri pentalobed.</td>
<td>Middle, cilindro-conical, sometimes wing.</td>
<td>Medium, globose. Skin is thick, stifling, yellow-greenish, covered with fine bloom.</td>
</tr>
<tr>
<td>Roze de Silagiu</td>
<td>Small arrow-headed, pentalobed.</td>
<td>Medium, cylindrical, often with beans</td>
<td>Small to medium, spherical, with trends mărgeluire. Skin is thin, pink-green. Contains 1-2 seeds.</td>
</tr>
<tr>
<td>Coadă de vulpe</td>
<td>Small to medium, arrow-headed, pentalobed.</td>
<td>Large to very large, cylindrical, wing and forked at the top.</td>
<td>Medium, globose, slightly elongate. Under the skin is thick, greenish-yellow, translucent, with rust spots on the sunny, clear pistilar point. Contains 2-3 seeds.</td>
</tr>
<tr>
<td>Mare bătut de Buziaș</td>
<td>Medium, round, pentalobată.</td>
<td>Large to very large, tapered wing with beans placed on the bunch to deformation.</td>
<td>Medium, globose, slightly elongate. Skin is thin, elastic, and pink. Contains 2 seeds.</td>
</tr>
<tr>
<td>Roz Dincă</td>
<td>Low-middle, arrow-headed, pentalobed.</td>
<td>Medium, conical, often with beans. Ramifications of the first base are more oblong.</td>
<td>Small to medium, slightly elongate. Skin is thin, elastic and pink. Contains 2 seeds.</td>
</tr>
<tr>
<td>Roz bătut</td>
<td>Medium, round, pentalobed.</td>
<td>Medium, cylindrical, often with beans.</td>
<td>Small-medium, slightly elongate. Skin is thin, pink-reddish. Contains 2 seeds.</td>
</tr>
<tr>
<td>Roz aromat de Buziaș</td>
<td>Middle, arrow-headed, trilobed.</td>
<td>Small, cylindrical, with the first 2 oblong ramifications.</td>
<td>Round, small to medium. Skin is thin, pink. Contains 2 seeds.</td>
</tr>
<tr>
<td>Rozaliu de Buziaș</td>
<td>Medium, round, heart shaped, whole.</td>
<td>Medium, tapered berry rare.</td>
<td>Very large, round, slightly oval, with green skin and pink. Mild flavor of cranberries. Contains 2-4 seeds.</td>
</tr>
<tr>
<td>Negru rar de Șaguna</td>
<td>Large, arrow-headed, pentalobed.</td>
<td>Cilindro-tapered wing, berry topping rarely.</td>
<td>Berry is spherical, middle. Skin is black-blue. Contains 3 seeds.</td>
</tr>
<tr>
<td>Edgar de Buziaș</td>
<td>Large, round, whole.</td>
<td>Medium to large, cylindrical.</td>
<td>Large, round. Skin is of medium thickness, black-blue. Contains 2 large seeds.</td>
</tr>
<tr>
<td>Mărgeluş negru de Buziaș</td>
<td>Large to very large, arrow-headed, pentalobed.</td>
<td>Middle, cylindrical, wing.</td>
<td>Large, round. Skin is thin, black violet colour. Containing 1-3 large seeds. Cranberries flavor</td>
</tr>
<tr>
<td>Negru rămuros de Silagiu</td>
<td>Medium, round, pentalobed.</td>
<td>Medium to large, ramose, conical.</td>
<td>Medium, slightly elongated in shape. Skin is thin, black-blue. Contains 3 seeds.</td>
</tr>
<tr>
<td>Roz de Silagiu</td>
<td>Medium, round, kidney shape, pentalobed.</td>
<td>Large, cilindro-tapered wing, often with berries one near another</td>
<td>Medium, almost spherical. Thin skin is pink. Contains 3 small seeds.</td>
</tr>
<tr>
<td>Alb dulce de Buziaș</td>
<td>Small heart shape, pentalobed.</td>
<td>Large, cilindro-conical, looking branchy.</td>
<td>Small, spherical shaped, uneven. Skin is elastic, thin, and yellow-gold. Not seeds.</td>
</tr>
<tr>
<td>Gâlbui de Șaguna</td>
<td>Middle, orbicular, pentalobed.</td>
<td>Medium to large, , cilindro-conical.</td>
<td>Medium, spherical. Skin is thick, green-yellow, translucent. Presents 1-2 seeds.</td>
</tr>
<tr>
<td>Lipovan de Buziaș</td>
<td>Middle, heart shaped, whole, with slight tendency trilobite.</td>
<td>Medium, cilindro-tapered wing.</td>
<td>Large, round. Skin is thin, black-blue. Contains 1-2 seed</td>
</tr>
</tbody>
</table>
### Table 4

Technological and phisico-chemical characteristics of grapes varieties and local biotypes for fresh consumption (average 2007-2008)

<table>
<thead>
<tr>
<th>Variety/Biotype</th>
<th>Sugar (g/l)</th>
<th>Acidity (g/l H₂SO₄)</th>
<th>Gluco-acidimetric index</th>
<th>Sugar (difference to the control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoriţa de Silagiu</td>
<td>150</td>
<td>5,5</td>
<td>27,2</td>
<td>-12</td>
</tr>
<tr>
<td>Coamă vişinie</td>
<td>142</td>
<td>5,5</td>
<td>25,8</td>
<td>-20</td>
</tr>
<tr>
<td>Verde cu boabe rare</td>
<td>191</td>
<td>4,5</td>
<td>42,4</td>
<td>+29</td>
</tr>
<tr>
<td>Negru vineaţiu de Silagiu</td>
<td>161</td>
<td>5</td>
<td>32,3</td>
<td>-1</td>
</tr>
<tr>
<td>Marele roz de Buziaş</td>
<td>160</td>
<td>4,5</td>
<td>35,5</td>
<td>-2</td>
</tr>
<tr>
<td>Moldovel de Buziaş</td>
<td>171</td>
<td>4,6</td>
<td>37,2</td>
<td>+9</td>
</tr>
<tr>
<td>Galben râmuros de Buziaş</td>
<td>194</td>
<td>3,6</td>
<td>53,8</td>
<td>+32</td>
</tr>
<tr>
<td>Crocant de Şaguna</td>
<td>168</td>
<td>5</td>
<td>33,6</td>
<td>+6</td>
</tr>
<tr>
<td>Alb aripat de Silagiu</td>
<td>158</td>
<td>5,1</td>
<td>30,9</td>
<td>-4</td>
</tr>
<tr>
<td>Răşchirată albă</td>
<td>130</td>
<td>6,1</td>
<td>21,3</td>
<td>-32</td>
</tr>
<tr>
<td>Roz bătut de Silagiu</td>
<td>142</td>
<td>6</td>
<td>23,6</td>
<td>-20</td>
</tr>
<tr>
<td>Regina viei</td>
<td>128</td>
<td>6,5</td>
<td>19,7</td>
<td>-34</td>
</tr>
<tr>
<td>Frumoasă albă de Buziaş</td>
<td>130</td>
<td>6,3</td>
<td>20,6</td>
<td>-32</td>
</tr>
<tr>
<td>Chasselas Dore</td>
<td>162</td>
<td>4,1</td>
<td>39,5</td>
<td>Mt</td>
</tr>
</tbody>
</table>

In case of the wine grapes varieties chemical composition is more important than in case of the table grapes varieties. It is notable in this regard varieties: Ruginiu de Silagiu, Patrujarca de Buzias, Fraga de Silagiu, and Pintenat de Buzias. On the opposite side is Roz de Buzias, Roz cu aripioara de Buzias and Rosietic de Silagiu, which compared with Feteasca Regala witness had lower accumulation of sugars.

### Table 5

Technological and phisico-chemical characteristics of wine grapes varieties and local biotypes (average 2007-2008)

<table>
<thead>
<tr>
<th>Variety/Biotype</th>
<th>Sugar (g/l)</th>
<th>Acidity (g/l H₂SO₄)</th>
<th>Gluco-acidimetric index</th>
<th>Sugar (difference to the control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galben compact de Buziaş</td>
<td>194</td>
<td>4,5</td>
<td>43,1</td>
<td>+4</td>
</tr>
<tr>
<td>Pintenat de Buziaş</td>
<td>197</td>
<td>4,6</td>
<td>42,8</td>
<td>+7</td>
</tr>
<tr>
<td>Roz cu aripioara de Buziaş</td>
<td>129</td>
<td>7</td>
<td>18,4</td>
<td>-61</td>
</tr>
<tr>
<td>Pătrujarcă de Buziaş</td>
<td>213</td>
<td>3,5</td>
<td>60,8</td>
<td>+23</td>
</tr>
<tr>
<td>Roz deformat de Buziaş</td>
<td>156</td>
<td>5,5</td>
<td>28,3</td>
<td>-34</td>
</tr>
<tr>
<td>Conul Şaguna de Buziaş</td>
<td>204</td>
<td>4,5</td>
<td>45,3</td>
<td>+14</td>
</tr>
<tr>
<td>Fragă albă de Silagiu</td>
<td>198</td>
<td>4</td>
<td>49,5</td>
<td>+8</td>
</tr>
<tr>
<td>Ruginiu de Silagiu</td>
<td>222</td>
<td>3,5</td>
<td>63,4</td>
<td>+32</td>
</tr>
<tr>
<td>Roz de Buziaş</td>
<td>121</td>
<td>6,5</td>
<td>18,6</td>
<td>-69</td>
</tr>
<tr>
<td>Negru mic de Silagiu</td>
<td>186</td>
<td>4</td>
<td>46,5</td>
<td>-4</td>
</tr>
<tr>
<td>Negru pruinat de Buziaş</td>
<td>186</td>
<td>4,5</td>
<td>41,3</td>
<td>-4</td>
</tr>
<tr>
<td>Roşu compact de Buziaş</td>
<td>151</td>
<td>6,5</td>
<td>23,2</td>
<td>-39</td>
</tr>
<tr>
<td>Negru aripat de Silagiu</td>
<td>152</td>
<td>6</td>
<td>25,3</td>
<td>-38</td>
</tr>
<tr>
<td>Roşietic de Silagiu</td>
<td>138</td>
<td>6,5</td>
<td>21,2</td>
<td>-52</td>
</tr>
<tr>
<td>Roz pruinat de Buziaş</td>
<td>190</td>
<td>4,5</td>
<td>42,2</td>
<td>-</td>
</tr>
<tr>
<td>Negru aromat de Buziaş</td>
<td>175</td>
<td>5,5</td>
<td>31,8</td>
<td>-15</td>
</tr>
<tr>
<td>Fetească regală</td>
<td>190</td>
<td>4,8</td>
<td>39,5</td>
<td>Mt</td>
</tr>
</tbody>
</table>

Some varieties are distinguished by a more acidity plus, thus are recommended for the obtaining of sparkly and frothy wines, or can be used as a corrective of the acidity of poor varieties or in the warm years, dry, like: Roz cu aripioara de Buzias, Rosietic de Silagiu, Rosu compact de Buzias, Roz de Buzias.
Table 6

Technological and phisico-chemical characteristics of grapes varieties and local biotypes with mixed features (average 2007-2008)

<table>
<thead>
<tr>
<th>Variety/Biotype</th>
<th>Sugar (g/l)</th>
<th>Acidity (g/l H2SO4)</th>
<th>Gluco-acidimetric index</th>
<th>Sugar (difference to the control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alb aripat de Silagiu</td>
<td>190</td>
<td>4,2</td>
<td>45,2</td>
<td>+28</td>
</tr>
<tr>
<td>Alb verzui de Silagiu</td>
<td>160</td>
<td>5</td>
<td>32</td>
<td>-2</td>
</tr>
<tr>
<td>Roze de Silagiu</td>
<td>175</td>
<td>5</td>
<td>35</td>
<td>+13</td>
</tr>
<tr>
<td>Coada de vulpe</td>
<td>190</td>
<td>4,5</td>
<td>42,2</td>
<td>+28</td>
</tr>
<tr>
<td>Mare bătut de Buziaş</td>
<td>172</td>
<td>5</td>
<td>34,4</td>
<td>+10</td>
</tr>
<tr>
<td>Roz Dincă</td>
<td>175</td>
<td>5</td>
<td>35</td>
<td>+13</td>
</tr>
<tr>
<td>Roz bătut</td>
<td>178</td>
<td>5</td>
<td>35,6</td>
<td>+16</td>
</tr>
<tr>
<td>Roz aromat de Buziaş</td>
<td>184</td>
<td>5</td>
<td>36,8</td>
<td>+22</td>
</tr>
<tr>
<td>Rozaliu de Buziaş</td>
<td>184</td>
<td>4,5</td>
<td>40,8</td>
<td>+22</td>
</tr>
<tr>
<td>Negru rar de Șaguna</td>
<td>168</td>
<td>5,5</td>
<td>30,5</td>
<td>+6</td>
</tr>
<tr>
<td>Edgar de Buziaş</td>
<td>152</td>
<td>6</td>
<td>25,3</td>
<td>-10</td>
</tr>
<tr>
<td>Mărgeleş negru de Buziaş</td>
<td>140</td>
<td>6</td>
<td>23,3</td>
<td>-22</td>
</tr>
<tr>
<td>Negru râmuros de Silagiu</td>
<td>164</td>
<td>5,5</td>
<td>29,8</td>
<td>+2</td>
</tr>
<tr>
<td>Roz de Silagiu</td>
<td>176</td>
<td>5</td>
<td>35,2</td>
<td>+14</td>
</tr>
<tr>
<td>Alb dulce de Buziaş</td>
<td>217</td>
<td>4,2</td>
<td>51,6</td>
<td>+55</td>
</tr>
<tr>
<td>Gâlbui de Șaguna</td>
<td>171</td>
<td>5,1</td>
<td>33,5</td>
<td>+9</td>
</tr>
<tr>
<td>Lipovan de Buziaş</td>
<td>155</td>
<td>5,5</td>
<td>21,1</td>
<td>-7</td>
</tr>
<tr>
<td>Chasselas Dore</td>
<td>162</td>
<td>4,1</td>
<td>39,5</td>
<td>Mt</td>
</tr>
</tbody>
</table>

In table 6 are presented varieties and local biotypes which shows mixed characteristics compared to the variety Chasselas dore, variety of grapes for table, but which can be used in winemaking too. These varieties present in the vast majority nice commercial looks, close to that of grapes for table, and some a balanced chemical composition which we recommend to be used in obtaining of some consumption wines, luscious, balanced with an alcoholic strength reduced, this being one of the world trends in winemaking area. From this group we can mention: Alb dulce de Buzias, Coada de vulpe, Roz aromat de Buzias, Rozaliu de Buzias.

Conclusions

Varieties and local biotypes are an important source of biodiversity and also a valuable source for obtaining authentic products typically able to impose on the wine market in which many consumers looking for products with local specific. Almost all the varieties and local biotypes grow arrested after a minimal technology, which amounts to cut and harvest, possibly 1-2 weedings, while the treatment plant are missing or limited to 1-2 spraying with bordelaise juice, which we determine to say that the grapes obtained can be considered organic grapes, which in future will be very appreciated by a major market segment that is orientating increasingly more for organic products, healthy for the human body. With all those mentioned there are many varieties and local biotypes shine through large productions, like the commercial aspect of grapes and balanced content in sugars and acidity. We wonder how it would behave these varieties in case of a culture technology based on scientific principles. Another important result of successful research has been capturing attention, interest and cooperation of many individuals who have become increasingly interested in this direction and have understood that in their gardens are to be found possible treasures. After research we managed to identify and take in for research many varieties and local biotypes, but certainly in the area of reference, there are many other varieties that we managed to identify them in the two years of research, but which will remain in our future concern.

References

1. Dobrei A., Sala F., Kocis Elisabeta, Malaescu Mihaela, 2008 - Varieties and local byotipes of vine from the western part of Romania, International conference on science and technique in the agri-food business, 5-6 noiembrie 2008, Szeged, University of Szeged, pag. 35