

XII International Conference on Grapevine Breeding and Genetics July 15 – 20, 2018 Bordeaux, France



### Preservation via utilization:

## Minor grape varieties on-farm

Erika Maul, Toni Schreiber, Frida Carka, Jorge Cunha, José Eduardo Jorge Eiras Dias, Massimo Gardiman, Anita Gazivoda, Dragoslav Ivanišević, Edi Maletić, Vesna Maraš, Gregorio Muňoz Organero, Dragan Nikolić, Ferdinand Regner, Franco Röckel, Anna Schneider, Goran Zdunić, Matthias Ziegler, Thierry Lacombe

- History -





David Tenier (1610-1690) Roderick Phillips 2000: Die grosse Geschichte des Weins. Campus Verlag

Which wine varieties were grown in the past?

First citations of varieties Italy XIII<sup>th</sup> century France XIV<sup>th</sup> century Spain XV<sup>th</sup> century Germany XVI<sup>th</sup> century

Which were the most appreciated?

To which extent were they cultivated?

Which varieties existed before?



Neglected and rescued varieties, examples:

- ❖ Magdeleine Noire de Charentes
- Benedicto
- Suessschwarz

..... and lots of

??????????



- Revival -





- Preservation in gene banks -

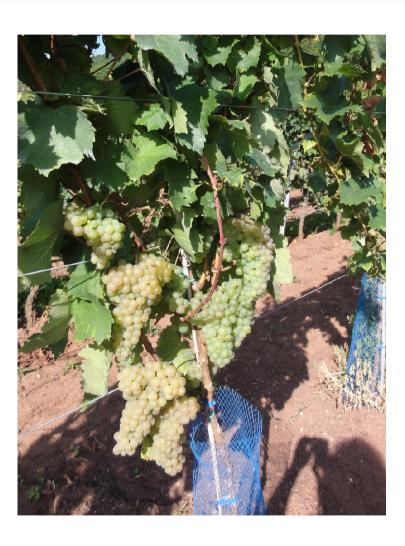




- Number of accessions increased considerably within the last 25 years
  - Economic constraints: space, labor and consumables are limited

- Preservation by a wine grower -





### Advantages:

- ❖ Maintenance of a larger number of plants
- Evaluation of agronomic features and wine quality under practice conditions
- Conservation of several clones
- Broadening of the genetic basis via mutation is possible

# Preservation via utilization: Minor grape varieties on-farm ECPGR Activity Grant Scheme – Third Call, 2016



## On-farm inventory of minor grape varieties in the European *Vitis* Database (GrapeOnFarm)

Period (01 January 2017 – 31 December 2017)





Erika Maul, Frida Carka, Jorge Cunha, José Eduardo Jorge Eiras Dias, Massimo Gardiman, Anita Gazivoda, Dragoslav Ivanišević, Edi Maletić, Vesna Maraš, Gregorio Muňoz Organero, Dragan Nikolić, Ferdinand Regner, Franco Röckel,
Anna Schneider, Goran Zdunić, Matthias Ziegler, Thierry Lacombe

www.julius-kuehn.de



"Not at all easy to drink what shall be preserved" (Thomas Riedl – wine amateur)

Inventory of on-farm producers,
promoting minor varieties cultivation
and appreciation by the wine drinkers

## Thus serving the following stakeholders:

- growers
- consumers
- merchants
- nursery men
- journalists
- germplasm repositories

**ECPGR Activity:** actions





1 – Selection of descriptors

2 – Announcement of the initiative

3 – Feedback from winegrowers

4 – Categories for vulnerability

5 – European regulations on minor grape varieties

GrapeOnFarm

6 – On-farm inventory in the European Vitis Database

**ECPGR Activity:** 1 – Selection of descriptors



Subject	Example of information
Grower identification (Who?)	Name, address Type of company Type of production
Variety preserved (What?)	Name, type of identification Origin, traceability Rarity arguments Official registration
Vineyard description (How?)	Soil, exposure, etc. Age Management system Sanitary status
Commitments	Link with technical institute Member of a network Sharing of germplasm (conditions)

Grower	
Owner: winery, cooperative or else	
Status as producer: wine, table grapes, amateur or else	
Name of the grower/winery/cooperative/else	
Town / village	
Street	
Country	
Latitude of the village	
Longitude of the village	
Height of the village	
Viticultural growing region	
District /Province	
Federal state / Autonomous Community	

Variety pres
Variety main local name
Berry color
VIVC prime name
VIVC variety number
Local synonyms only
Reasons why - according to the grower - th considered autochthonous and old, importaneglected, minor or else
Reasons for having chosen this variety: wir acidity potential, taste, personal appreciation
Reasons why the variety is considered as r for this variety)
Origin of <b>initial</b> propagation material (e.g. c prospection material, nursery, grapevine cc
Origin of the planted material
Donor accession number
Clone
Who identified the variety?
When was the variety identified?
How was the variety identified?
Registered in the National List
Registered in another European country

Vineyard description
Name of the appelation
Town / village
Plantation of the vineyard (Year) (Example: around 1930)
General description of the vineyard. Example: traditional plantation, research vineyard
Planted area (ha) or number of vines
Soil type
Exposure and slope
Spacing and density
Pruning system. Trellis management
Pest control management
General status (vigour, health)
Virus status (visual observation)
Virus test (e.g. Elisa)
Year of virustesting
Missing vines (%)
Rootstock
Marketing of the wine (yes/no)

<b>1</b>
Commitments
Contact with an official technical institute
Share of material (yes/no)
Member of a local network
Safety duplication ex-situ.Institute code or Institute adress.
Labels in the vineyard (yes/no)
Exact map available (yes/no)

ECPGR Grant Scheme Activity (2017)

(http://www.ecpgr.cgiar.org/working-groups/vitis/grapeonfarm)

## Preservation via utilization: Minor grape varieties on-farm ECPGR Activity: 2 - Announcement of the initiative





On-farm-Erhaltung ist Bestandteil des Projektes:

nachhaltigerLandwirtschaft - BÖLN), Laufzeit 01.01.2014 - 31.12.2016

Weiterentwicklung von Wissenstransfer- und Informationssystemen zur nachhaltigen Nutzung

rebengenetischer Ressourcen" (Finanzierung: Bundesprogramm Ökologischer Landbau und andere Formen



### Producteurs de cépages rares, recensez-vous!

Mardi 03 octobre 2017 par Alexandre Abellan



patrimoine variétal. l'une des plus connues en France es seule des Vianerons de Plaimont, aui ont fait classer monument historique la parcelle de Sarragachies. - crédit

### Une enquête européenne cherche à établir u commerciaux cultivant des vignes oubliées at

« Vous cultivez des cépages patrimoniaux rares dans voi enquête européenne! » lance l'ampélographe Thierry La ambassadeur français du projet européen Grape On Far Collaboratif pour les Ressources Génétiques Végétales ( répertorier des cépages rares conservés in situ.

Menée dans dix pays\*, cette enquête se heurte pour l'ir une certaine réticence des vignerons à afficher leurs init reconnaît Thierry Lacombe. Pour l'ampélographe, « il y i toujours une peur de l'administration pour des cépages statut n'est pas clair » (voir encadré), mais ce recensem doit pas entraîner de la méfiance explique l'expert. « L'e va permettre de partager des informations entre domai. différents pays européens. Notamment pour connaître le méthodes de valorisation » explique Thierry Lacombe.

### Chasse aux trésors viticoles

Devant déboucher à terme sur une liste ouverte à tous de disparition, l'enquête espère structurer les initiatives est constitué des collections de l'INRA (domaine de Vass trentaine de conservatoires locaux (associations, chamb ajouterait avec les cépages minoritaires in situ un nouve Lacombe.

\*: Albanie, Allemagne, Autriche, Croatie, Espagne, Fran

### Reconnaissance des variétés de conservation

Thierry Lacombe.





Vous cultivez des cépages patrimoniaux rares sur votre exploitation 7 ferme" des cépages rares en Europe. Objectif : participer à leur préservation



disparaître dans un futur plus ou moins proche

A côté des variétés phares qui assurent l'essentiel de la production de vins, une multitude de cénages secondaires existent toujours dans les vignobles La rareté de certains d'entre eux rend nécessaire leur conservation active afin de ne pas les voir

Montpellier SupAgro, l'IFV et une trentaine de partenaires régionaux), des actions individuelle même de leurs exploitations.

Ce mode de conservation « à la ferme » des ressources génétiques locales parti naturellement au maintien global de la richesse du matériel végétal existant. Dans ce contexte, l'ECPGR (Programme Européen Collaboratif pour les Ressources Cénétique Végétales) a mis en place le projet CrapeOnFarm visant à inventorier les acteurs impliqués dan ette conservation « à la ferme » des cépages rares en Europe.

Pour plus d'information sur ce projet, vous pouvez consulter la page suivante http://www.ecpgr.cgiar.org/working-groups/vitis/grapeonfarm/

Si vous pensez être un acteur de la conservation « à la ferme » de cépages rares en France et vous souhaitez figurer dans l'inventaire européen des viticulteurs impliqués dans ce type d'action, your pouvez nous contacter

Contact pour la Vallée du Rhône : Viviane Bécart (v.becart@syndicat-cotesdurh . Contact national : T. Lacombe, thierry.lacombe@inra.fr













nouvelle campagne du ministère des Solidarités et de la

Solidarités et de la Santé et de l'Institut

cible directement le vin. Vin & Société et

En marge de cette enquête, « nous essayons de créer auprè variété de conservation. Souvent, les vieilles variétés ne son statut réglementaire clair. Avoir une acceptation officielle p

**ECPGR Activity:** 3 – Feedback from winegrowers



[26.4.17]

### **Result:**

177 vineyards with rare traditional grape varieties:

- ❖ Spain: 109
- ♣ Albania 16
- ❖ Montenegro 14
- ❖ Croatia 13
- Germany 13
- France 11
- Portugal 5
- Serbia 5
- Austria 3



 Este artículo es fruto de la colaboración entre científicos de casi una trentena de centros de investigación, a partir de los trabajos realizados recientemente por más de 70 expertos en viticultura y enología de todo el territorio bajo un mismo proyecto financiado por el INIA (RF2012-27-C5-00), en colaboración con la Oficina Española de Variedades Vegetales y el Centro de Recursos Fitogenéticos. La coautoría es:

Gregorio Muñoz Organero, G.1; De Andrés M.T.1; Vargas, A.1; Aller, M.1; Serrano, M.J.2; Cretazzo, E.2; Pérez, J.A.2; Puertas, M.B.2; Gogorcena, Y.3; Giménez, R.3; Andreu, L.J.4; Bruna, P.<sup>4</sup>; Usón, J.J.<sup>4</sup>; Loureiro, M.D.<sup>5</sup>; Bota, J.<sup>6</sup>; Medina, C.E.<sup>7</sup>; González, F.J.<sup>8</sup>; Gutiérrez, M.R.<sup>9</sup>; Martínez, J. <sup>10</sup>; Chacón, J.L. <sup>10</sup>; Mena, A. <sup>10</sup>; Fernández González, M. <sup>11</sup>; Rubio, J.A. <sup>12</sup>; Arranz, C. <sup>12</sup>; Yuste; J. <sup>12</sup>; Domingo, C. <sup>13</sup>; Puig, S. <sup>13</sup>; Puig, A. <sup>14</sup>; González, J.B. <sup>15</sup>; Diaz, E. <sup>16</sup>; Ribas, A. <sup>16</sup>; Rego, F. 16; Martínez, M.C. 17; Santiago, J.L. 17; Ruiz García, L. 18; Martínez Cutillas, A. 18; Fuentes Denia, A.18; Cibriain, J.F.19; Sagüés, A.19; Suberviola, J.19; Royo, J.B.20; Santesteban, L.G.20; Urrestarazu, J.<sup>20</sup>; Lauzirika, M.<sup>21</sup>; Fernández González, M.<sup>22</sup>; Aragonés, A.<sup>22</sup>; Ibáñez, J.<sup>23</sup>; Baroja, E.<sup>23</sup>; Pérez-Sotés, J.L.<sup>23</sup>; Martínez-Zapater, J.M.<sup>23</sup>; Salazar, D.<sup>24</sup>; López, I.<sup>24</sup>; Velázquez, B.24; Chirivella, C.26; García, J.25; Jiménez, C.26; Martínez, R. 27; De la Rosa, L.27; Bravo, M.28; Cabello, F.1

ECPGR Grant Scheme Activity (2017)

(http://www.ecpgr.cgiar.org/working-groups/vitis/grapeonfarm)

**ECPGR Activity:** 4 – Categories for vulnerability



### Criteria to determine vulnerability of rare historical varieties

ECPGR Vitis Working Group. ECPGR Grant Scheme Activity "GrapeOnFarm", 17.11.2017

Category (1)	Status of the variety	Number of individual vines	Estimated surface (according to 5000 vines/ha) (2)(3)	Number of geographical sites	Status of propagation	Status of official registration into National Catalogues (3)	
CR- critically endangered		<1000	< 0,2 ha		Maintained in a grapevine repository only / maintained	Generally no	
EN - endangered	Local neglected variety	1.000-5.000	< 1 ha	≤ 2 wine growing districts and/or ≤ 5 vineyards	in a vineyard only / not or very rarely propagated / no interest for commercial cultivation.		
VU - vulnerable		5.000-15.000	1-3 ha		Occasionally propagated	Generally yes	
NT – nearly threatened	Local variety	15.000- 50.000	4-10 ha	Generally grown in 1 wine growing district and/or ≤ 50 vineyards	Occasionally propagated	Yes	
LC- least concern	Minor variety	>50.000	>10 ha	Generally grown in >1 growing district	Regularly propagated	Yes, included in at least one wine PDO appellation	
UC- no-concern (unconcerned)	Varieties spread all over, international varieties				Regularly propagated	Yes, included in >1 wine PDO appellations	

This table was adapted from "Green book: indigenous grapevine varieties of Croatia", Maletic, E.; Kontic, J. K.; Ilias, I., State Institute for Nature Protection (2015).

www.julius-kuehn.de

**ECPGR Activity:** 4 – Categories for vulnerability



### Criteria to determine vulnerability of rare historical varieties

ECPGR Vitis Working Group. ECPGR Grant Scheme Activity "GrapeOnFarm", 17.11.2017

Category (1)	Status of the variety	Number of individual vines	Estimated surface (according to 5000 vines/ha) (2)(3)	Number of geographical sites	Status of propagation	Status of official registration into National Catalogues (3)	
CR- critically endangered		<1000	< 0,2 ha		Maintained in a grapevine repository only / maintained		
EN - endangered	Local neglected variety	1.000-5.000	< 1 ha	≤ 2 wine growing districts and/or ≤ 5 vineyards	in a vineyard only / not or very rarely propagated / no interest for commercial cultivation.	Generally no	
VU - vulnerable		5.000-15.000	1-3 ha		Occasionally propagated	Generally yes	
NT – nearly threatened	Local variety	15.000- 50.000	4-10 ha	Generally grown in 1 wine growing district and/or ≤ 50 vineyards	Occasionally propagated	Yes	
LC- least concern	Minor variety	>50.000	>10 ha	Generally grown in >1 growing district	Regularly propagated	Yes, included in at least one wine PDO appellation	
UC- no-concern (unconcerned)	Varieties spread all over, international varieties				Regularly propagated	Yes, included in >1 wine PDO appellations	

This table was adapted from "Green book: indigenous grapevine varieties of Croatia", Maletic, E.; Kontic, J. K.; Ilias, I., State Institute for Nature Protection (2015).

www.julius-kuehn.de

## Preservation via utilization: Minor grape varieties on-farm ECPGR Activity: 5 – European regulations on minor grape varieties



# Proposition of the ECPGR GrapeOnFarm group for traditional neglected varieties inclusion in national listings:

- (1) Description following DUS descriptors or other descriptors or using descriptions from historical books and genetic fingerprint to prove distinctness
- (2) VAT Any relevant information from collections, trials or bibliography
- (3) Done by research institutes, regional or local institutions, e.g. based on local trials.
- (4) Duration: 1 year
- (5) Fees: none





Rare traditional varieties on-farm

IOME

VARIETIES GROWER, WINERY ON-FARM GEO-MAP LINKS CONTACT





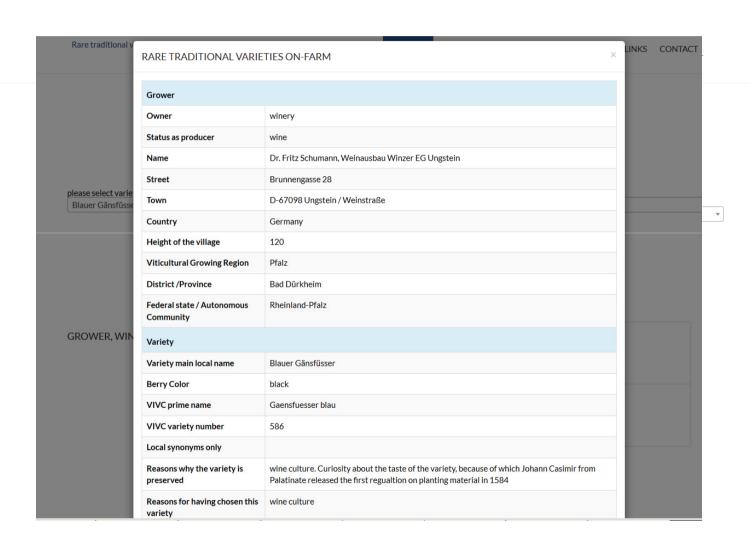
Rare traditional varieties on-farm

VARIETIES GROWER, WINERY ON-FARM GEO-MAP LINKS CONTACT



Rare traditional varieties on	farm	HOME	VARIETIES	GROWER,WINERY	ON-FARM	GEO-MAP	LINKS	CONTACT
	c∽∽TRADIT	IONA	AL VARI	IETIES 🗪	9			
please select varieties by loc Blauer Gänsfüsser	al name:	)		please select varieti	ies by VIVC pri	me name:		*
		1						
GROWER, WINERY	Dr. Fritz Schumann, Weinausbau Wir D-67098 Ungstein / Weinstraße Brunnengasse 28 Pfalz	nzer EG U	ngstein: 0	N-FARM CHARACTE	ERISTICS			
	Weingut Braun: ON-FARM CHARAC D-67149 Meckenheim Hauptstraße 51 Pfalz	TERISTIC	S					
	MORE INFORMATION							







Rare traditional varieties on-farm	HOME VARIETIES GROWER,WINERY ON-FARM GEO-MAP LINKS CONTACT	
	GROWER, WINERY	
Germany  Dagmar Rückrich-Menger  Hauptstrasse 12  D-67575 Eich	INGRAM'S MUSCAT  ON-FARM CHARACTERISTICS MORE INFORMATION	
	VELTLINER FRUEHROT  ON-FARM CHARACTERISTICS MORE INFORMATION	
		^

# Preservation via utilization: Minor grape varieties on-farm ECPGR Activity: Assistance for promoting the on-farm database



Link: <a href="http://www.eu-vitis.de/on-farm/">http://www.eu-vitis.de/on-farm/</a> and via the European *Vitis* Database

Encouraging
wine growers
to participate

**Informing** wine lovers

to discover minor grape varieties and their potential



Roderick Phillips 2000: Die grosse Geschichte des Weins. Campus Verlag













## Thank you for your kind attention















MINISTERIUM FÜR EIN LEBENSWERTES ÖSTERREICH

HBLAuBA KLOSTERNEUBURG WEIN- UND OBSTBAU

Institute for Adriatic Crops and Karst Reclamation

www.julius-kuehn.de