RESOLUTION OIV-VITI 652-2021

OIV RECOMMENDATIONS CONCERNING THE SELECTION AND BREEDING OF GRAPEVINE VARIETIES FOR THEIR ADAPTATION TO THE EFFECTS OF CLIMATE CHANGE

THE GENERAL ASSEMBLY

ON THE PROPOSAL of the Commission I « Viticulture » and the Expert groups “Genetic Resources and Vine Selection” and “Sustainable Development and Climate Change”,

IN VIEW of the article 2, paragraph 2 c) iii of the Agreement of 3rd April 2001, establishing the International Organisation of Vine and Wine, and under the axe 1 of the OIV Strategic Plan 2020-2024, which relates the promotion of ”Environmentally-friendly vitiviniculture” and the consideration and responses to the challenge of climate change,

CONSIDERING resolution VITI 5/1998 which recommends also evaluating the effects of drought also from the point of view of plant material,

CONSIDERING Resolution OIV-VITI 01-2002 on preservation of the diversity,

CONSIDERING Resolution OIV-VITI 01-2003 on coordination of priority themes in viticulture and that establish genetic diversity and biodiversity as being of crucial importance,

CONSIDERING resolutions OIV-VITI 355-2009 and OIV-VITI 424-2010 respectively related to the Evaluation of grapevines obtained by genetic transformation and Conservation of vine's genetic resources,

CONSIDERING resolution OIV-VITI-517-2015 defining the guidelines for studying climate variability of vitiviniculture in the context of climate change and its evolution,

CONSIDERING the OIV resolution OIV CST 518-2016 on general principles of sustainable vitiviniculture, and especially the principle 2: Sustainable vitiviniculture respects the environment and the parts concerning to preserve the biodiversity,

CONSIDERING resolutions OIV-VITI 564A-2017 and OIV-VITI 564B-2019 respectively related to the process for the clonal selection of vines and the process for the recovery and conservation of the intravarietal diversity and the polyclonal selection of the vine in grape varieties with wide genetic variability,

CONSIDERING Resolution OIV-VITI 609-2019 related to the definition of a protocol for identification of vine varieties.

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RECOGNIZES :

- ✓ In general, grapevines and rootstock varieties have different tolerance capacities and different adaptability to all types of climatic and environmental constraints.
- ✓ The successful development and adaptation of the vine in certain environments and the resultant oenological value of many varieties occurred over a very long time,
- ✓ The rational use of rootstocks and grapevine varieties offers the potential for enhance adaptation to climatic conditions accentuated by climate change (in particular in the issues of water availability)
- ✓ In the future, new varieties of grapevines and rootstocks or the appropriate choice of plant material from the existing germplasm better adapted to new constraints, should significantly contribute to the improved sustainability of the sector.
- ✓ A strengthened international collaboration of scientifical institutions must be encouraged in order to facilitate the research on selection and breeding grapevine, and also to ensure its faster incorporation into the sector of varietal innovations better adapted to climate change, while recognizing and respecting international agreements on exchange of genetic material.
- ✓ There is a need for the exchange of information on the processes of selection and breeding grapevine and on harmonization of the test protocols for grapevine and rootstock varieties, to be actively supported in order to effectively evaluate and compare their agronomic and technological potential for adaption to climate change across the many diverse environments,
- ✓ Across the world, robust data from vitivinicultural production systems clearly show climate change has been affecting yields, quality and value of grapes and wines for quite some years and projections point towards greater impacts in the coming decades.

RECOMMENDS :

- ✓ To improve knowledge on the adaptation of the existing varietal assortment and on the biodiversity potential in genus *Vitis* in relation with climate change and its response to changes in growing conditions and related issues.
- ✓ To coordinate the efforts of the entire international scientific community for a new and specific exploration of the plant material present in the different geographical areas, original cradles of the *Vitis genus*,
- ✓ To promote, initiate and coordinate pre-breeding, selection and breeding programs based on:
  - i) the recovery and conservation of genetic resources of the vine useful for this purpose,

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ii) exploitation of recent obtentions of hybridization, including also for rootstocks, as a starting point for further selection and new breeding approaches,

iii) the use of the genetic and phenotypic diversity and variability of the grapevine and rootstock varieties in order to respond to the issues of adaptation to the environmental and biological constraints (abiotic and biotic stress) accentuated by climate change.

✓ After achieving the first results and obtaining new germplasm, to coordinate international initiatives in order to facilitate the exchange of genetic resources and the experimentation with existing and new plant material in different countries and regions, in particular to allow the:

i) Characterization of traditional (ancient) varieties in order to promote the cultivation of those particularly adapted to the constraints and stress factors linked to climate change.

ii) Evaluation of the aptitudes of new obtentions in different regions and under different natural and/or artificial climatic and stress factors linked to projections of climate change.

iii) Development of a common and concerted strategy in terms of establishing a sustainable selection and breeding programs (in particular for experimental protocols) to develop novel germplasm to improve adaptation and resilience of the global vitivinicultural production systems to climate change.

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