"CODE OF GOOD ORGANIC VITICULTURE AND WINE MAKING"



Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME

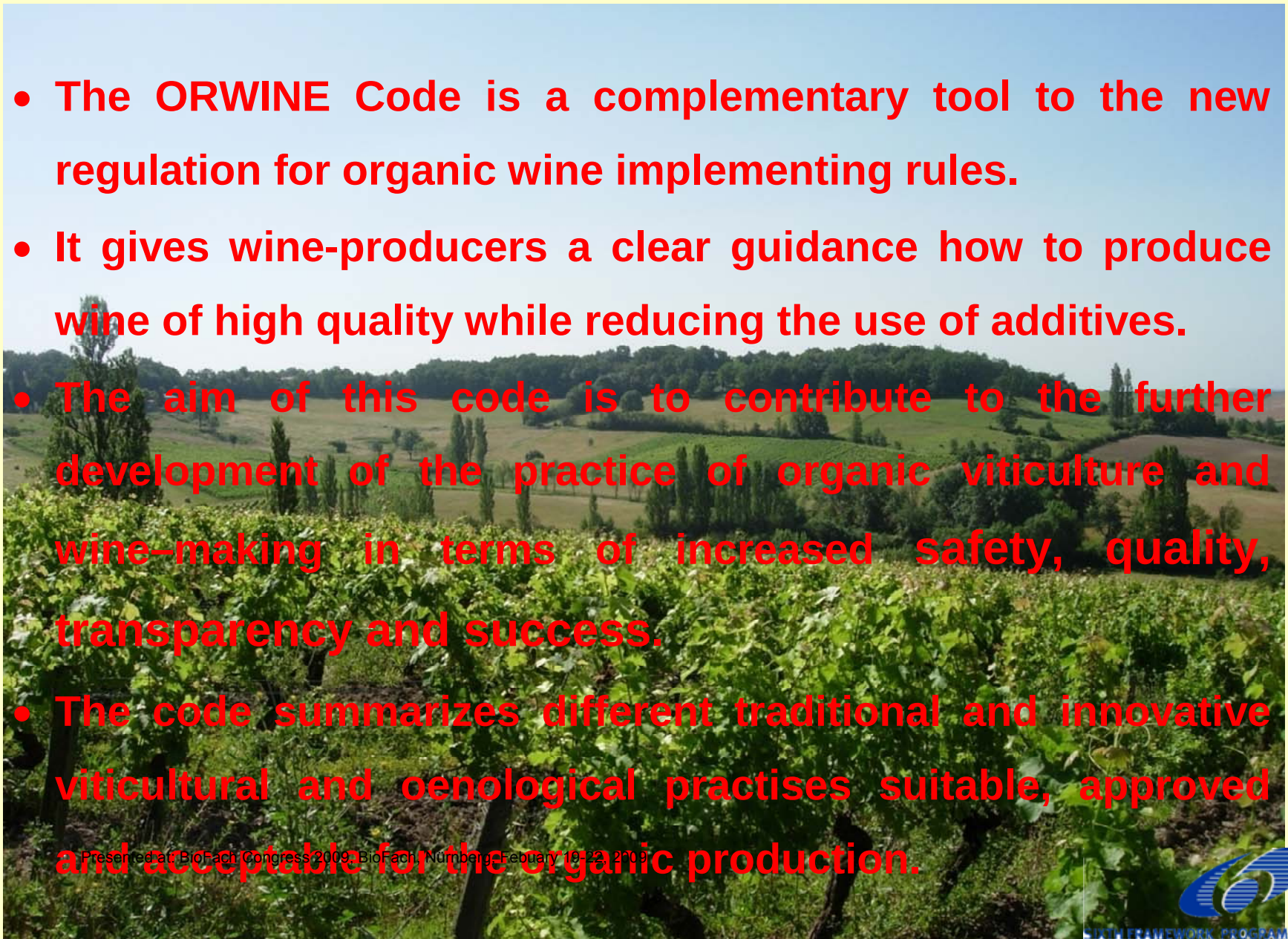
Authors: Trioli G.; Hofmann U.; Carmuzzo P.; Cottereau P.; Jonis M.; Werner M.; Salmon JM.; Fragoulis G.; Barbier JM.; Zironi R.

Editors: Hofmann U.; Carmuzzo P.; vd Meer M.; Levite D.

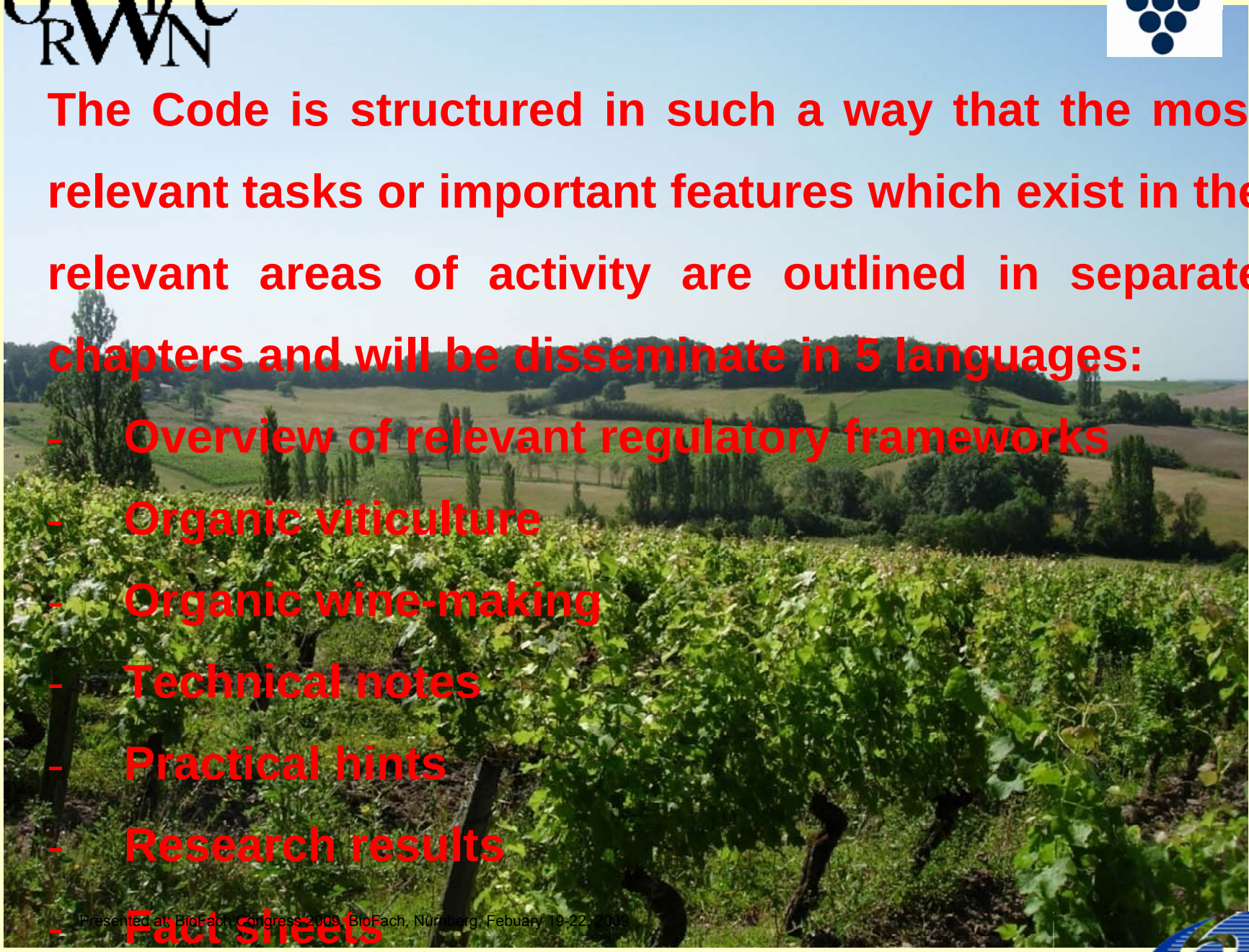
This Code of good organic viticulture and Wine-making has been developed as part of the EU project "ORWINE Organic viticulture and wine-making: development of environment and consumer friendly technologies for organic wine quality improvement and scientifically based legislative framework"

Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME



- The ORWINE Code is a complementary tool to the new regulation for organic wine implementing rules.
- It gives wine-producers a clear guidance how to produce wine of high quality while reducing the use of additives.
- The aim of this code is to contribute to the further development of the practice of organic viticulture and wine–making in terms of increased safety, quality, transparency and success.
- The code summarizes different traditional and innovative viticultural and oenological practises suitable, approved and acceptable for the organic production.



The Code is structured in such a way that the most relevant tasks or important features which exist in the relevant areas of activity are outlined in separate chapters and will be disseminate in 5 languages:

- Overview of relevant regulatory frameworks
- Organic viticulture
- Organic wine-making
- Technical notes
- Practical hints
- Research results
- Fact sheets

SIXTH FRAMEWORK PROGRAMME

ORGANIC VITICULTURE

Plant Protection strategies			
Downy mildew			Related documents
- no risk	low infection pressure	high infection pressure	
Planting of high resistant grape varieties (PIWI) reduces the use of copper treatments.	*Dry weather conditions, low rainfall, no dew, low humidity < 40%; late primary infection (after blooming)* *day temperature > 30°* *night temperature < 10°*	*Wet and warm weather conditions, high or permanent rainfall, dew, high humidity >95%* *early primary infection* *day temperature < 30°* *night temperature > 20°*	
Two plant treatments with low copper content or plant strengtheners (like sulphuric acid clay) before and after blooming Well structured canopy	Weather forecasting system Well structured canopy Application methods, timing of the treatments Spraying every second row Treatments with low copper content (100 – 500 g Cu/ha per spray) or plant strengthener	Weather forecasting system Well structured canopy Application methods, timing of the treatments Spraying every row, weekly treatments with high copper content (500 – 1000 g Cu/ha per spray), 3 applications of Potassium-phosphonate between pre-flowering and fruit set maximum use of Copper: 6kg Cu/ha *(30 kg in the average of 5 years)*	References: canopy management

Regulatory framework:
Regulation (EC) No 834/2007: Article 12: (g) the prevention of damage caused by pests, diseases and weeds shall rely primarily on the protection by natural enemies, the choice of species and varieties, crop rotation, cultivation techniques and thermal processes;
(h) in the case of an established threat to a crop, plant protection products may only be used if they have been authorised for use in organic production
Authorised organic plant treatments included in Annex IIB,
National regulations of plant protection

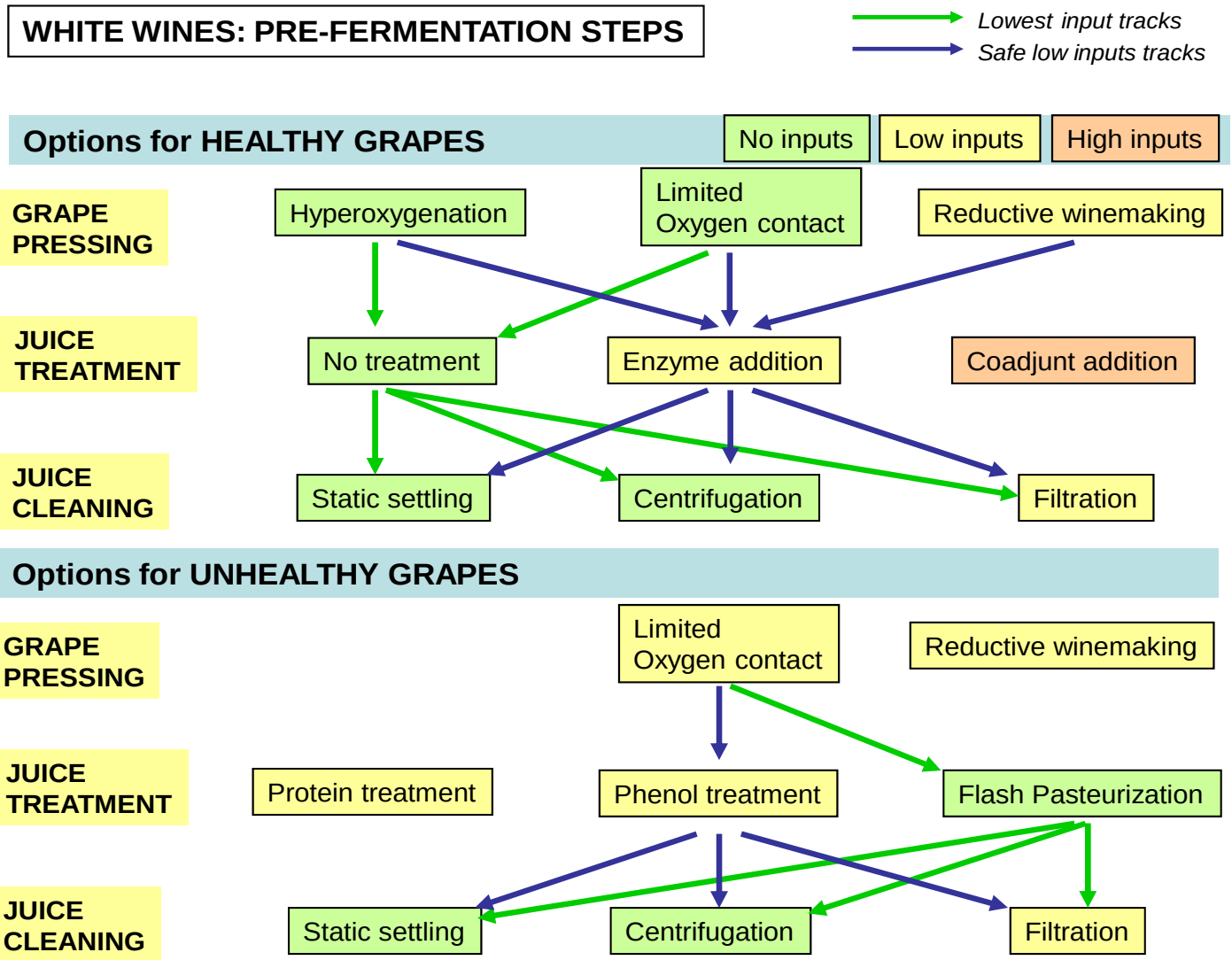
Additional comments:
Selective harvesting, sorting and destemming are necessary, infected berries can influence the quality of the wine (mush-fermentation by red wine)
Copper has a **negative role on the expression of sulphuric aromas such as the « thiols »**.
Copper treatments increase the skin thickness; this thickening favours a better resistance to the diseases occurring at the end of the year: grey rotting and acid rotting.

Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

Environmental impact: Copper is a heavy metal which remains in the soil and which is toxic for some micro-organisms. Long term strategies to reduce the amount of copper are necessary.

SIXTH FRAMEWORK PROGRAMME

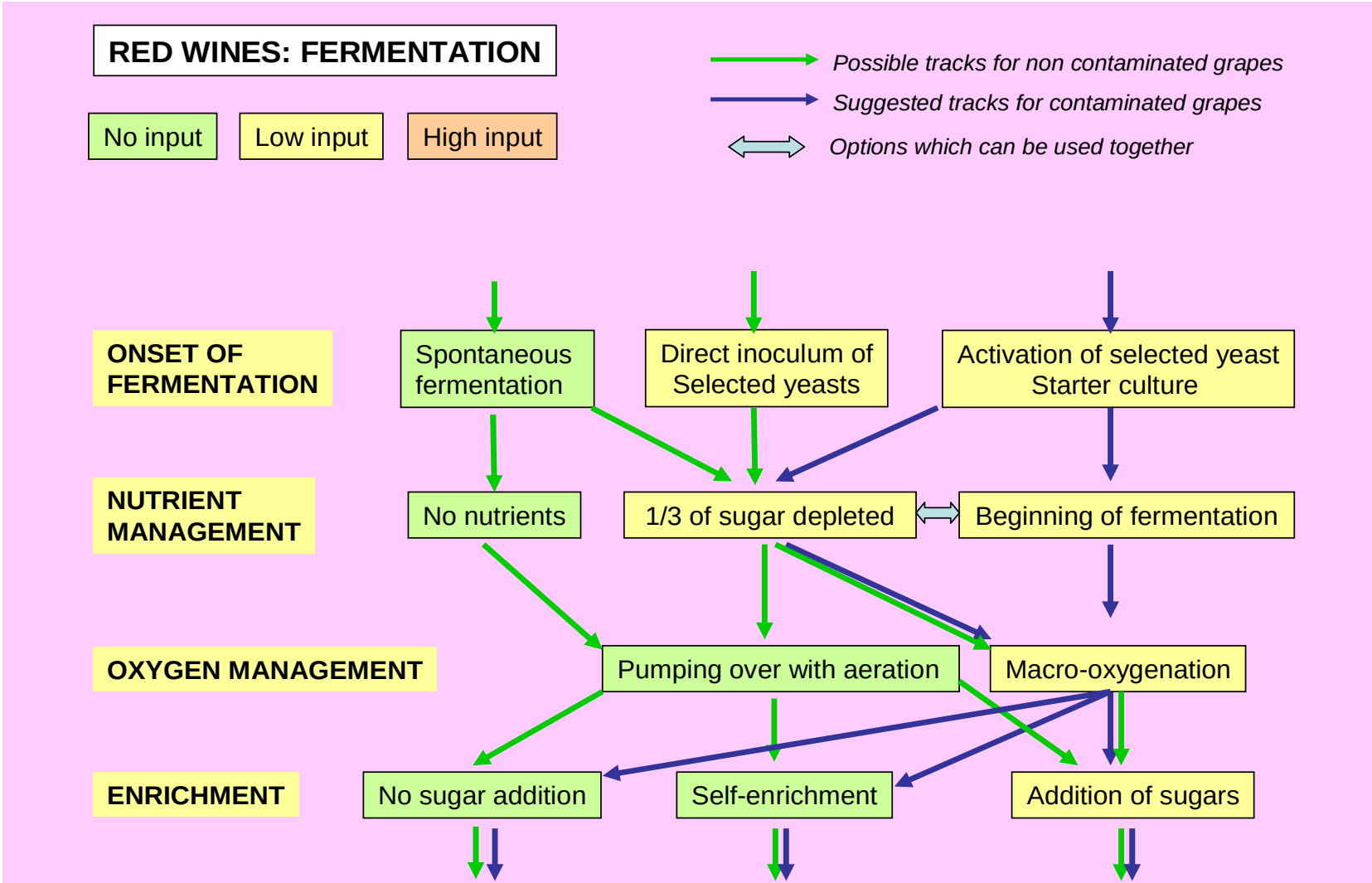
ORGANIC WHITE WINE MAKING



Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME

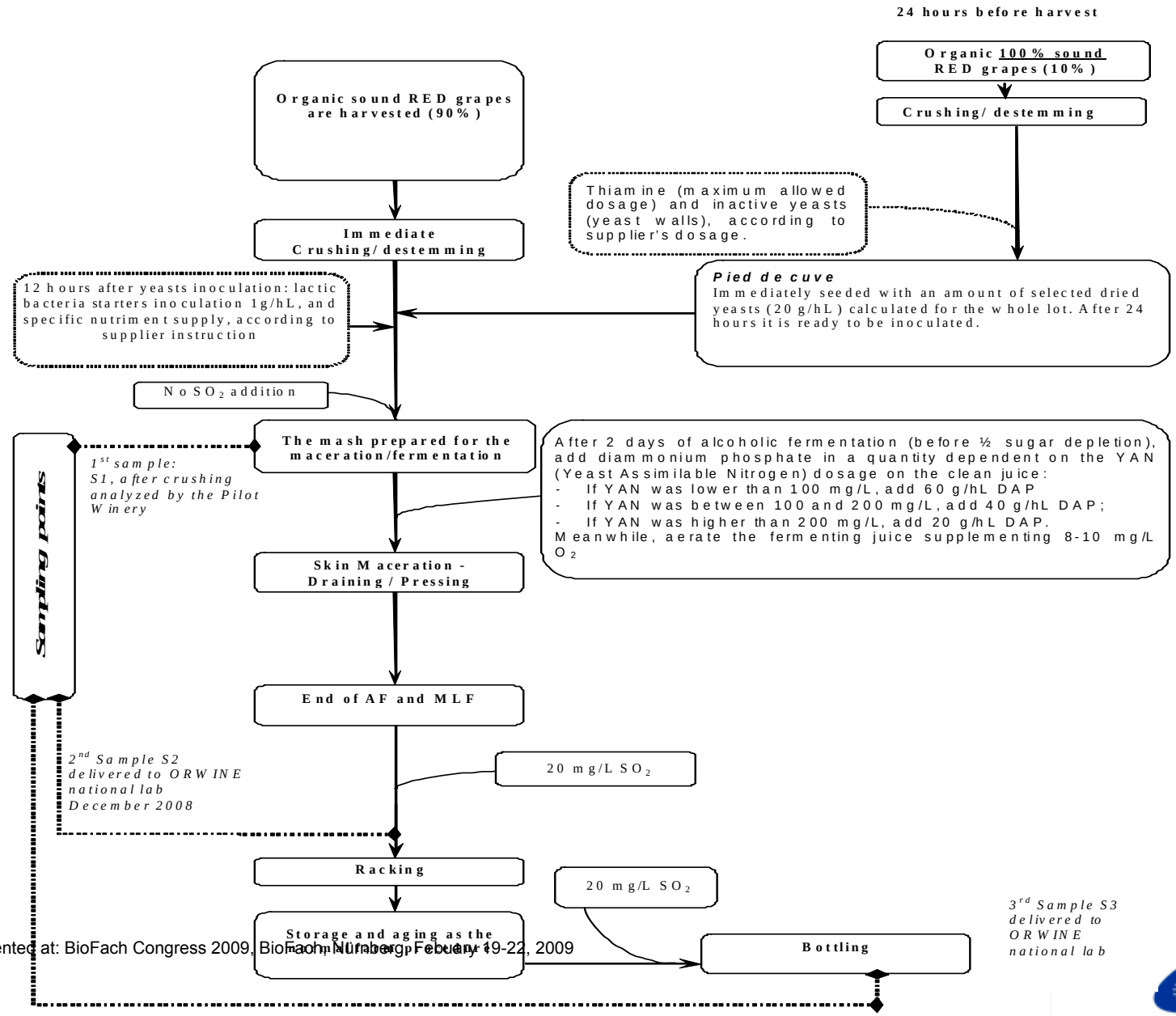
ORGANIC RED WINE-MAKING



Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME

ORGANIC RED WINE MAKING



SIXTH FRAMEWORK PROGRAMME

TECHNICAL NOTES

Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME

RESEARCH RESULTS

Presented at: BioFach Congress 2009, BioFach, Nürnberg, Febuary 19-22, 2009

SIXTH FRAMEWORK PROGRAMME