



ITUM
grapes



10TH
INTERNATIONAL
TABLE GRAPE
SYMPOSIUM

26 NOV
TO
1 DEC 2023

SOMERSET WEST
SOUTH AFRICA

Table grape
cultivars enriched
in polyphenols,
a new challenge

Investigación y Tecnología de Uva de Mesa, S.L.



Created in 2002

Objective: Obtaining and development new table grape varieties

Investigación y Tecnología de Uva de Mesa, S.L.



ALIMER S. COOP.

ANTONIO CARRILLO E HIJOS, S.A.

COATO, S. COOP.

COOP. ALMEND TOTANA S.C.L.

EL CIRUELO, S.L.

FRUTAS CAMPOBLANCA, S. COOP

FRUTAS CANO Y SANCHEZ, S.L.

FRUTAS ESTHER, S.A.

FRUTAS LA CARRICHOSA, SCL

FRUTAS Y HORT. SAN MARCOS, S.THADER, S. COOP.

FRUTAS TORERO, S.A.

FUTUROS AGRICOLAS, S.L.

GRUPO. HORT. PALOMA, S.A

INVESTIGACIONES LA HOYA, S.L.

LEBOR ALTO

MOYCA, S.A.T.

NUEVAS UVAS DE TOTANA, S.L.

PROYECTOS ITUM 2005, S.L.

S.A.T. CAMPOTEJAR DEL SEGURA

S.A.T. BLANCASOL

SOTO DE LA ARZUELA, S.A.

S.THADER, S. COOP.

UVAS APIRENAS DE DISEÑO

UNILAND, S. COOP.



biotechnology techniques
in vitro culture
molecular markers



- very crunchy texture
- low farming labor
- high productivity

main characteristics
of our breeding program



Itumone

t NO

años uvas

Itumthirteen

Itumfour

Itumfive

Itumsix

Itumsixteen

Itumseventeen



Itumseven



Itumeleven



Itumtwelve



Itumfourteen



Itumfifteen



Itumeighteen

20 años uvas

International expansion (5 continents)





Coolgrape™



ROSE™
Caramel



Crispy
Dreams™



Black Joy™



BOOMGRAPE™



CRUNCHY POP™

ITUM
grapes



Itumfive





CRUNCHY POP™

Itumseven



BOOMGRAPE™

Itumsix

The logo for Crispy Dreams, featuring the brand name in a purple, sans-serif font. The word "Crispy" is on the top line and "Dreams" is on the bottom line. A small trademark symbol (TM) is located to the right of "Crispy". On either side of the text, there is a small, stylized purple icon resembling a leaf or a drop.

Crispy
Dreams™

A photograph of several large, dense clusters of dark purple grapes hanging from a vine in a vineyard. The grapes are oval-shaped and have a rich, dark purple color. The background shows green leaves and other grape clusters, with sunlight filtering through the foliage, creating a dappled light effect on the ground.

Itumnine

BlackJoy™



Itumtwelve



ROSE™
Caramel

Itumfifteen

diseases tolerant varieties(2007) downy & powdery mildew

Felicia

GfGa-5242

Kishmish Vatkana

Regent

.....

Vitis Romanetti



test for diseases tolerance (2017-2020) Torreblanca farm



without fungicide treatments

Itumfifteen

natural color
muscat flavor
early season harvest

ROSE™
Caramel



Itumseventeen

natural color

muscat light flavor

early season harvest



exotic flavours : caramel & fruity (2010)

Isabella

Undarrabi Zuri

Moscatel Hamburgo

Moscatel Alejandría

.....

Vitis Labrusca



Itumnineteen

natural color
fruity flavor
early season harvest
anti-bird bagging



Itumtwenty

toffee flavor

crunchy textura

high fertility

late season harvest





red pulp: healthy & antioxidant grapes (2015)

A hand is shown holding a single red grape. A white brushstroke graphic is drawn across the image, starting from the top left and moving towards the bottom right, partially overlapping the grape and the text. The background is a blurred green and blue, suggesting an outdoor setting with foliage.

Garnacha tintorera or
Alicante Bouschet

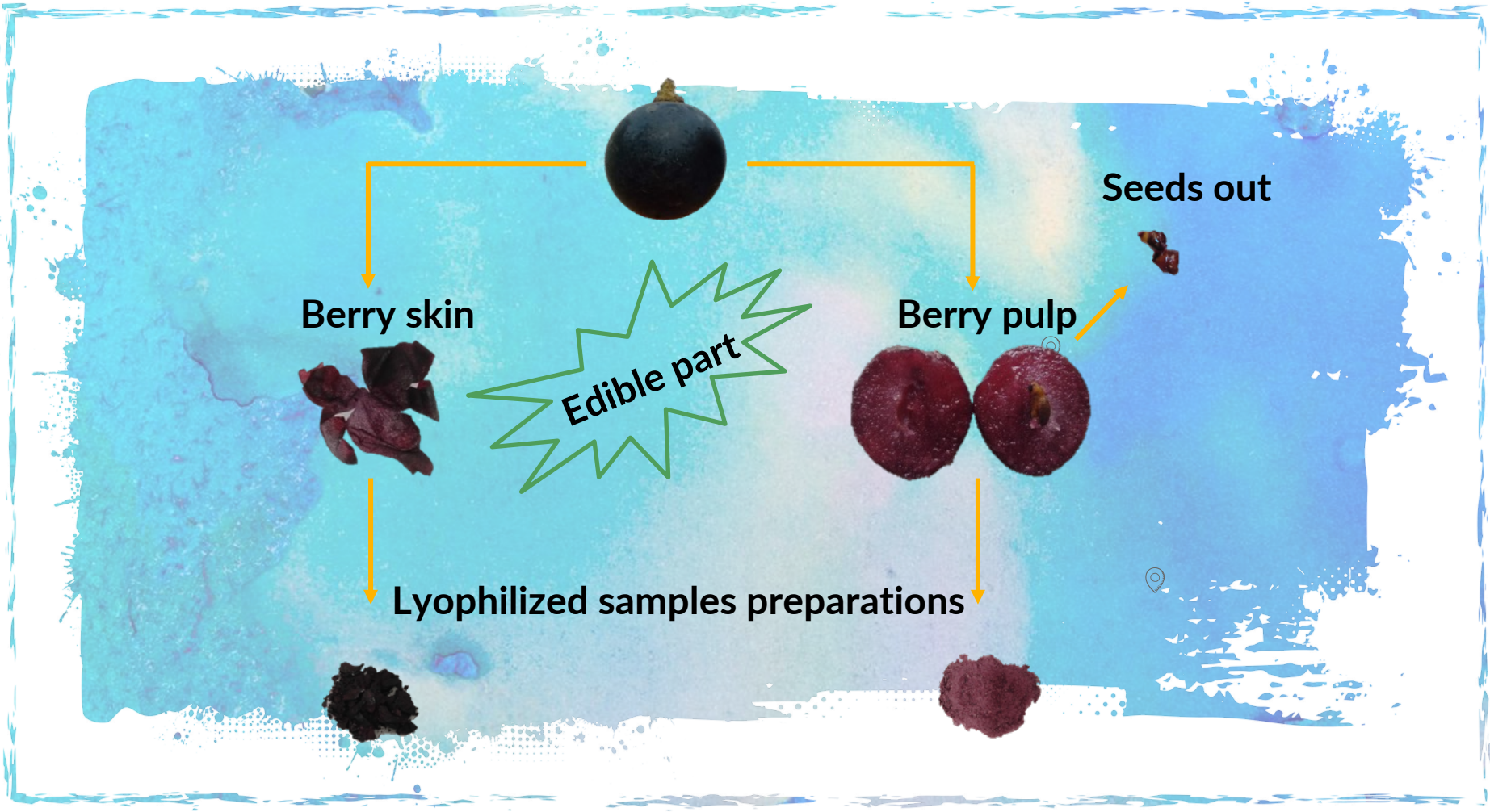
Petit Bouschet

Morrastel Bouschet

...

Gamai teinturier

Fenolic compounds and
antioxidant capacity



Berry skin



Edible part

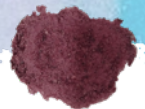
Berry pulp



Seeds out



Lyophilized samples preparations





lyophilized
pulps and
skins



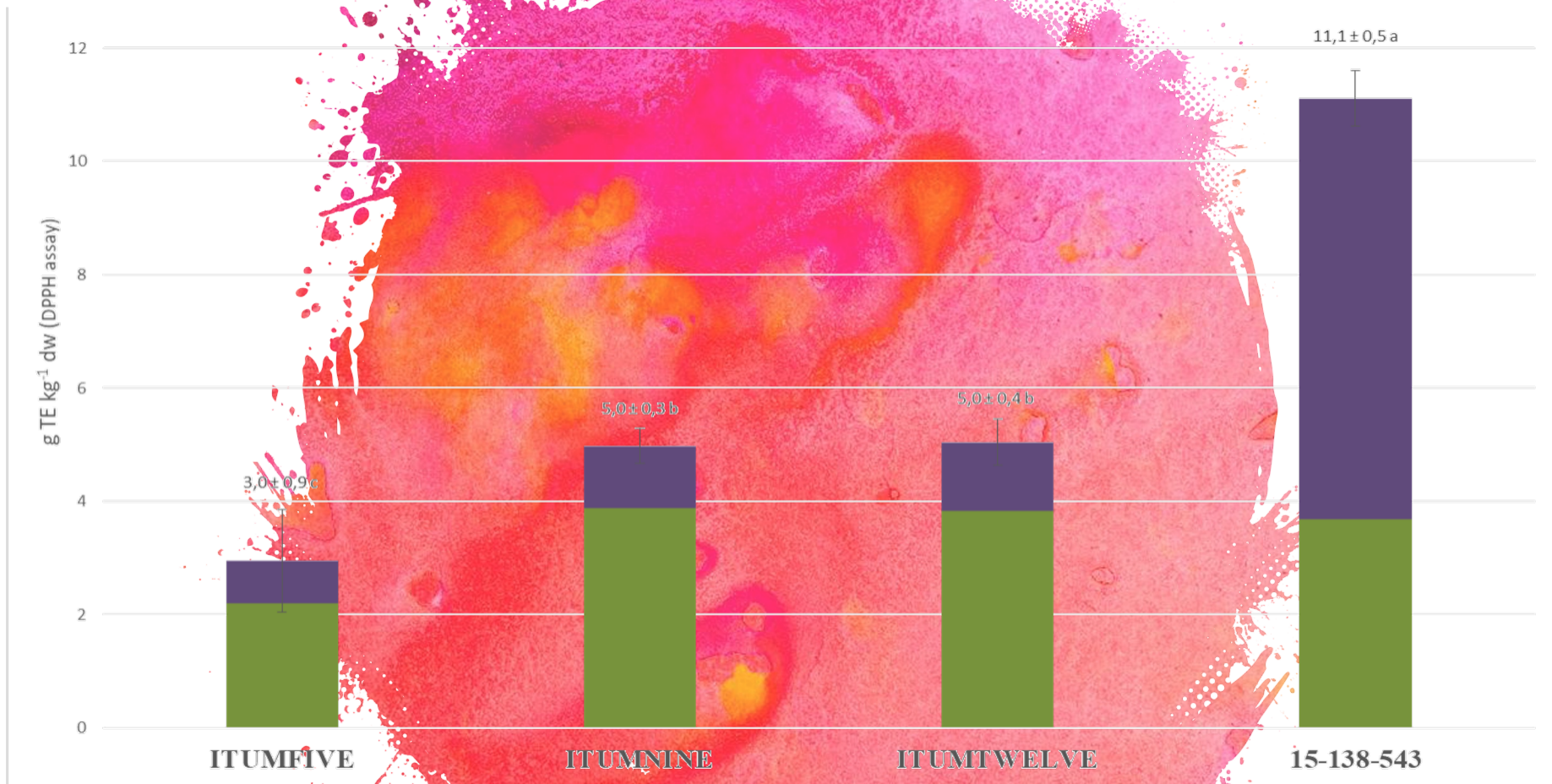
- 80 °C

A bowl containing green leafy vegetables on the left and brown powder on the right.

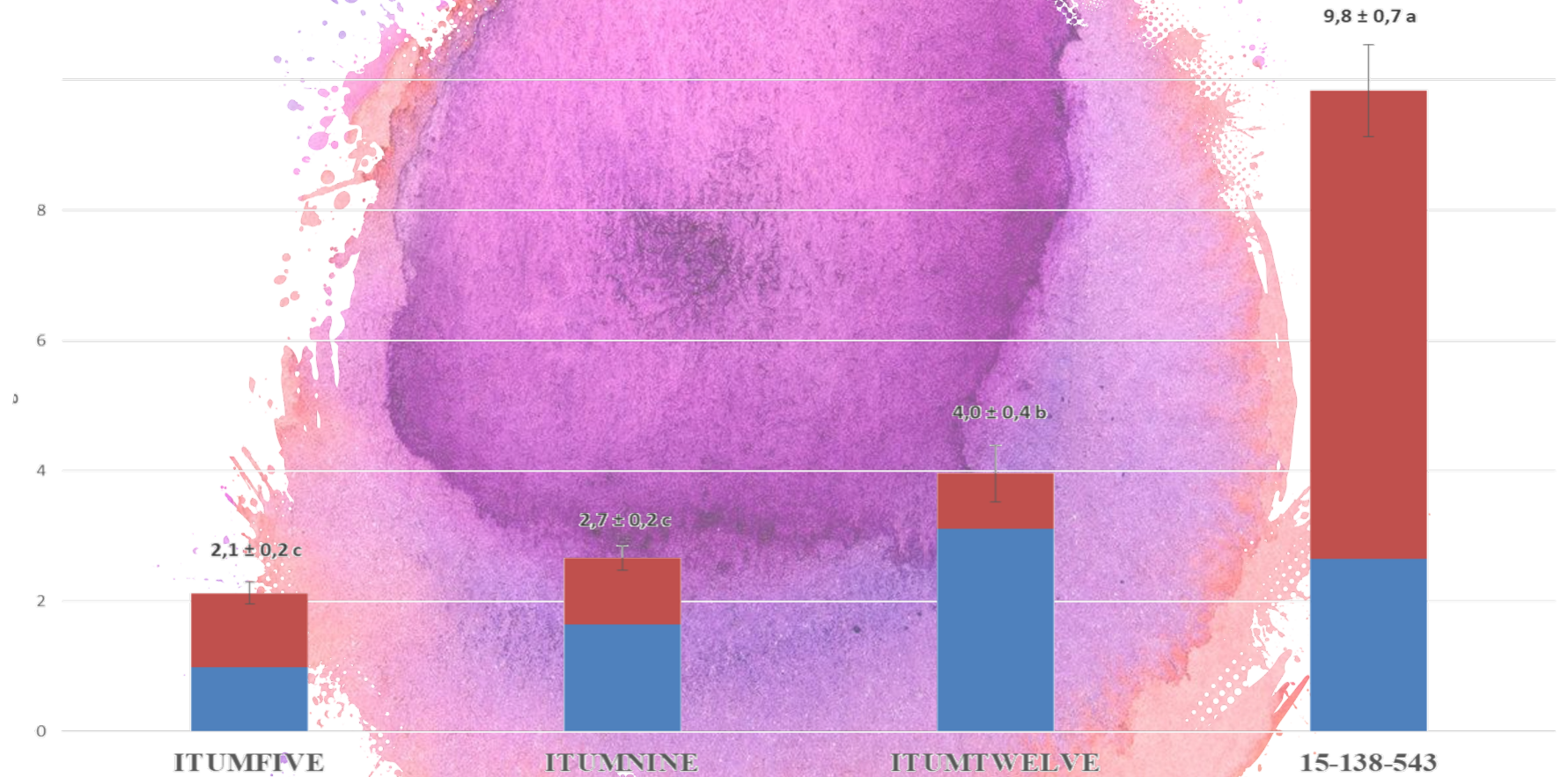
espectrophotometric determinations

Total Antioxidant Capacity TAC

Total Phenolic Compounds TPC



total antioxidant capacity TAC



total phenolic compounds TPC

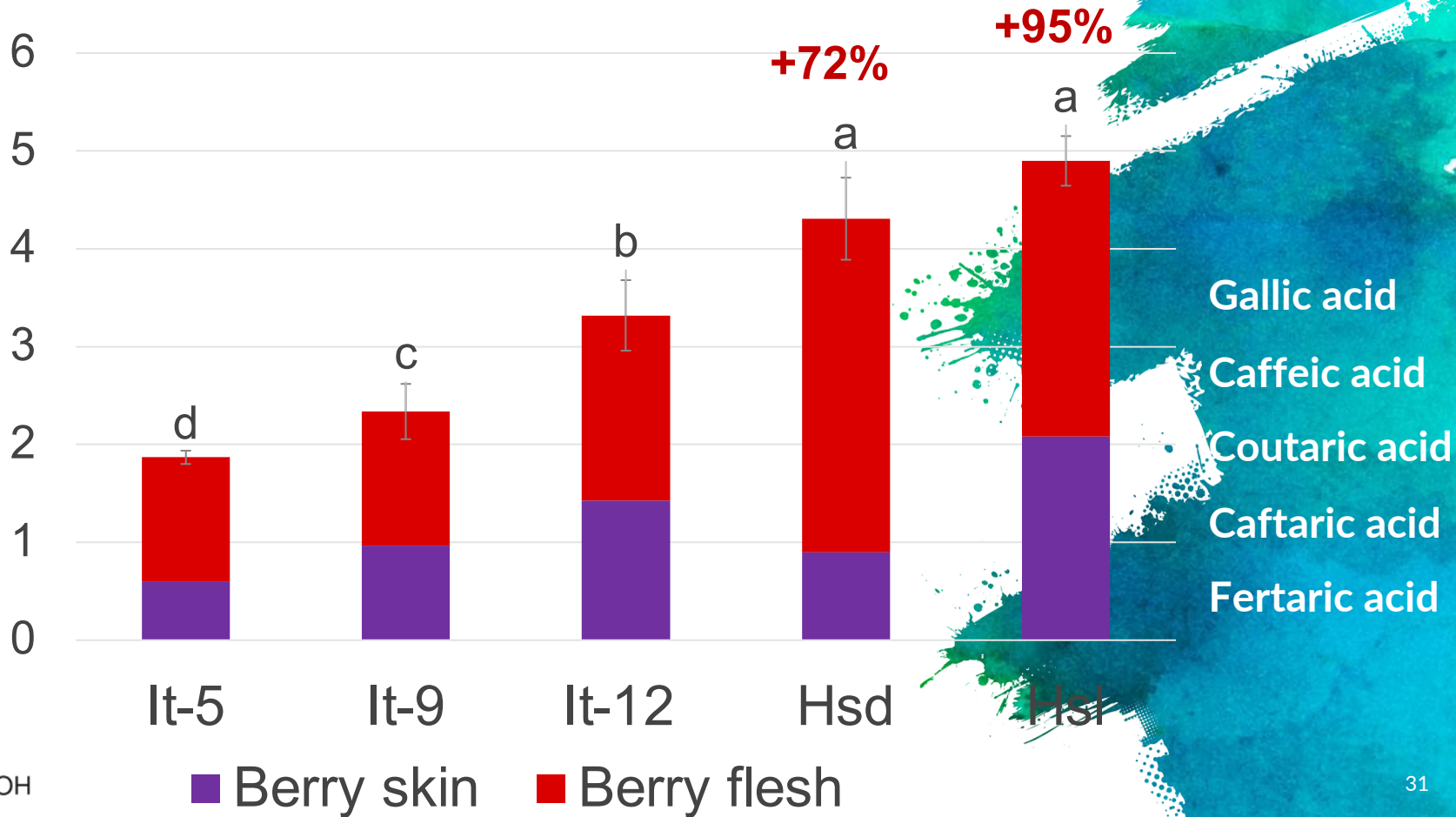
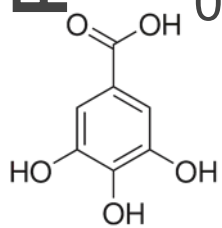


individual phenolic
compounds

U-HPLC analysis

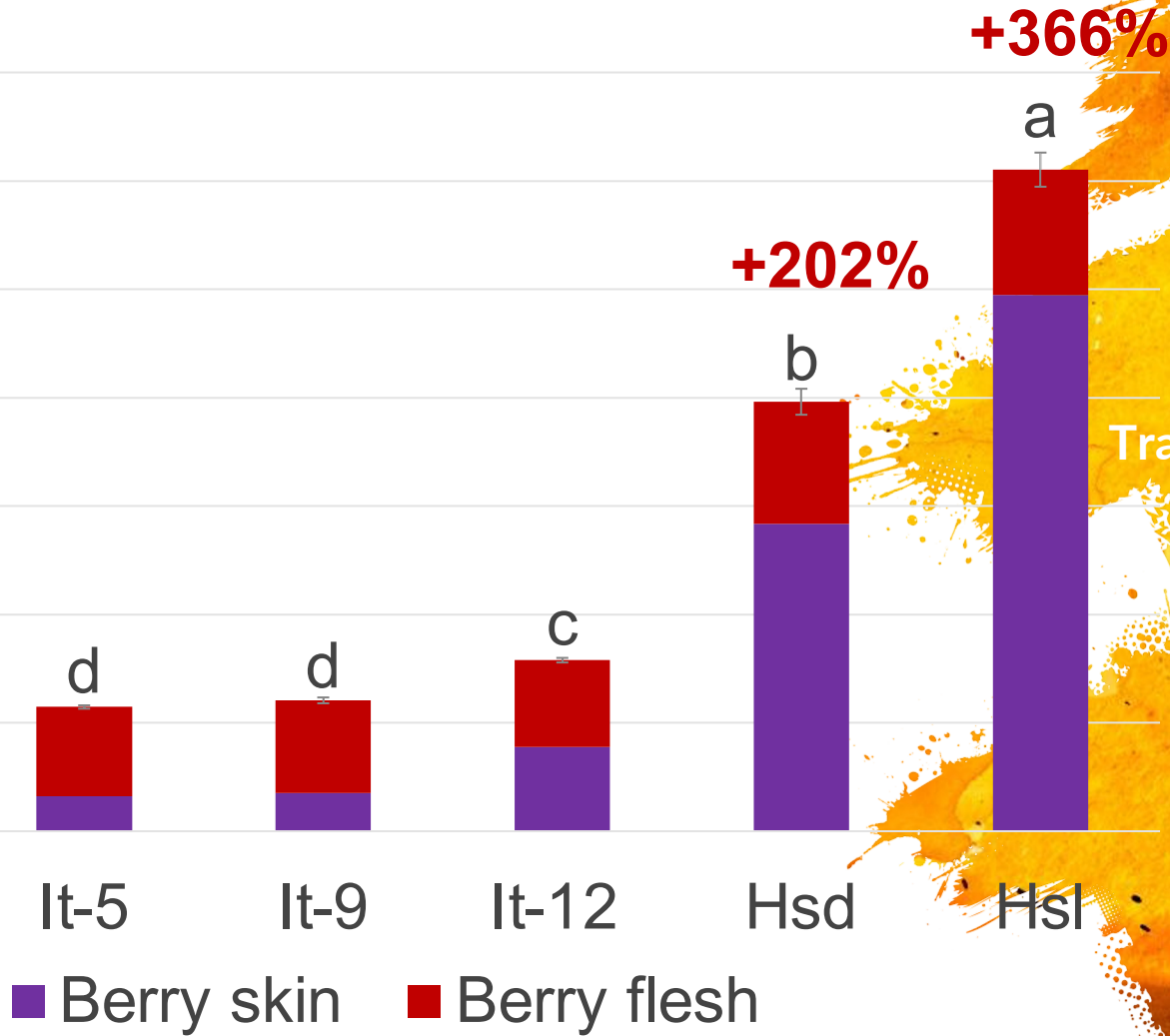
PHENOLIC ACIDS

(g kg⁻¹ DW)

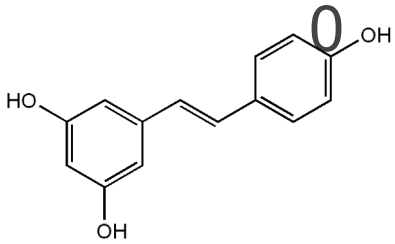


STILBENES (g kg⁻¹ DW)

0,14
0,12
0,1
0,08
0,06
0,04
0,02



Piceido
Transresveratrol



FLAVONOLS (g kg⁻¹ DW)

1,4
1,2
1
0,8
0,6
0,4
0,2
0

It-5

It-9

It-12

Hsd

Hsl

■ Berry skin

■ Berry flesh

c

d

c

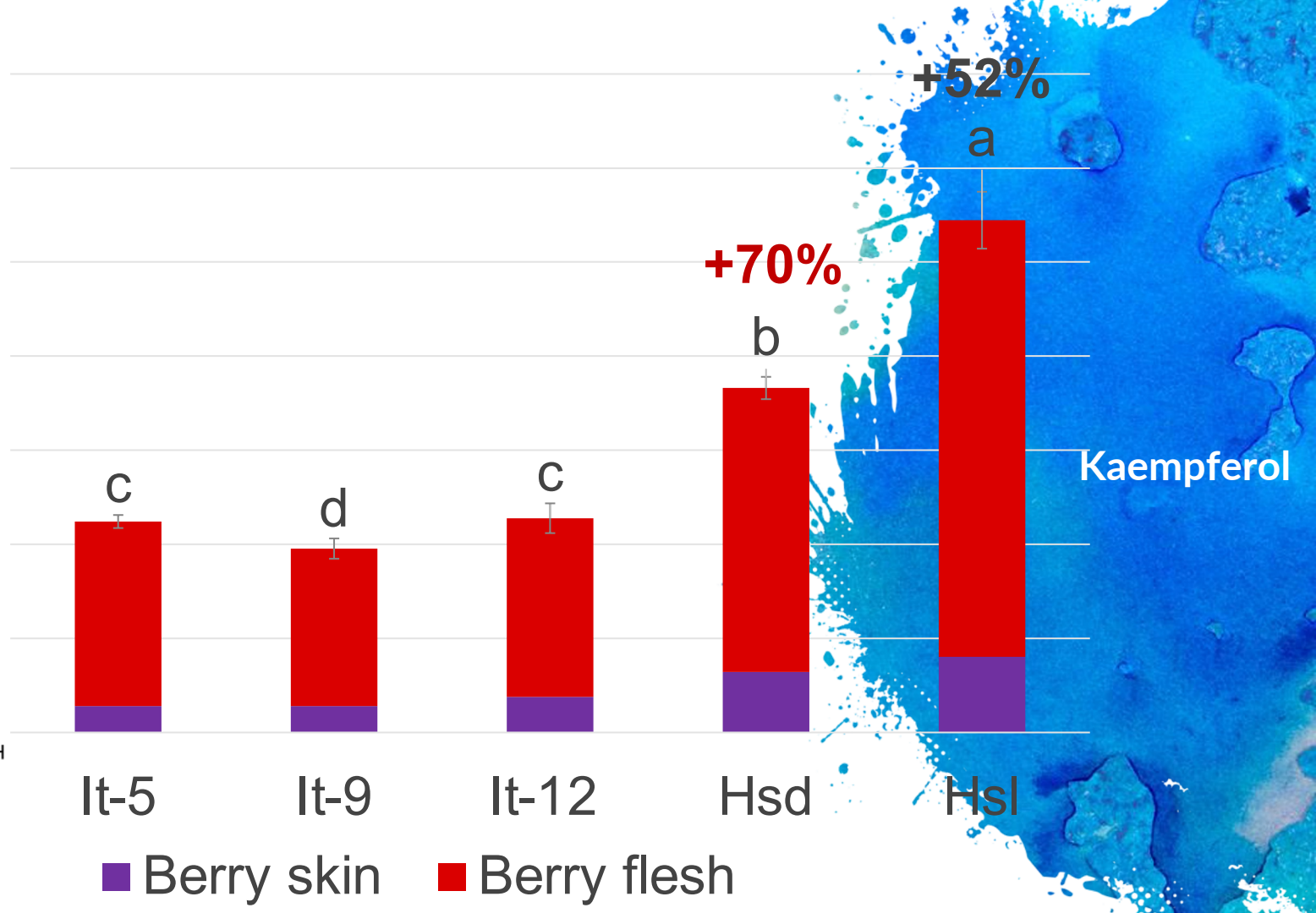
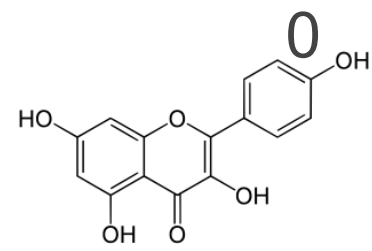
b

a

+70%

+52%

Kaempferol



ANTHOCYANINS

(g kg⁻¹ DW)

4

3

2

1

+544%

+229%

Malvidin

Delfinidin

Pelargonidin

Petunidin

Peonidin

■ Berry skin

■ Berry flesh

It-5

It-9

It-12

Hsd

Hsl

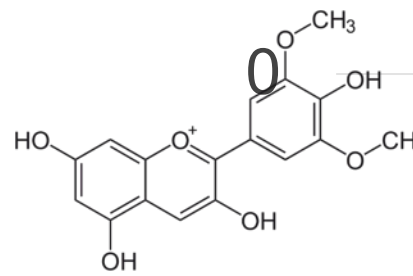
e

d

c

b

a



Conclusions

Red flesh hybrids have a higher content in bioactive compounds expressed as total Antioxidant Capacity (TAC)

Conclusions

Red flesh grapes showed higher content in bioactive compounds expressed as Individual Phenolic compounds such as Phenolic acids, Stilbenes, Flavonols and Anthocyanins

Conclusions

Red flesh hybrids are enriched in healthy compounds and maintaining high quality parameters of table grapes

colaborating companies



Symborg
NATURAL
GROWTH



Certis Belchim
GROWING TOGETHER

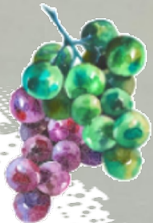


colaborating companies





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