



Northern Viticulture

Reviews and studies

Juha Karvonen

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To my grandfathers

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Preface

My idea to experiment with wine-growing at high latitudes in Northern Europe came to me while I was a visiting researcher at the University of McMaster in Ontario, Canada. Near the University, 40 kilometers north of Niagara Falls, were about 20 vineyards established by European immigrants which produced, in my opinion, quite good wine from *Vitis vinifera* L. varieties in circumstances corresponding to those of Southern Scandinavia.

At the end of my carrier, I began studying wine growing at Napa Valley College, in California and continued my viticulture studies at the University of Applied Sciences Eisenstadt, Austria. Later, I received my MSc (horticulture) from the University of Helsinki. On the basis of my studies and experiments I have also written following books in Finnish: *Arktisen viininkasvatuksen oppaan* (*Guidebook to Arctic wine growing*) and *Viiniköynnöksen kasvatus Suomessa* (*Viticulture in Finland*).

I have also written *Northern viticulture* based on my own 25 years of experiments and research on viticulture in the southern regions of Northern Europe and the Baltic Sea region at 55 – 60°N latitude. The book deals with the suitability of the current climate as well as circumstances and conditions of these regions for viticulture and how predicted change in the climate should facilitate it.

I express my deep gratitude for invaluable contribution to Mr Jaan Kivistik, at Rāpina Aianduskool, Rāpina, Estonia; Mr Lars Hagerman, at Domain Aalsgaard, Denmark; Mr Edgars Zihmanis, at Vīnogu Dārzs, Tervetes pagasts, Latvia; Mrs Lena Jørgensen and Mr Murat Sofrakis, at Vingården i Klagshamn, Klagshamn, Sweden, Mrs Helena Tiililä and Mr Raimo Saar, at Tiililä Farm, Pälkäne, Finland, meteorologist Asko Huttila, at Finnish Meteorological Institute, Helsinki, Finland, and secondary school lecturer Pekka Karvonen, Vehmersalmi, Finland.

I have received valuable technical assistance from Mr Mikko Niemi of Ekoweb in Turku, Finland, and from MSc Jyrki Ollikainen at the School of Information Sciences, University of Tampere, Finland, as well as invaluable scientific support from PhD Riitta Törrönen, University of Eastern Finland, Kuopio, Finland, and Prof. ing. Pavel Paulovšek, at Mendel University in Brno, Czech Republic.

Above all, I thank my wife Anna-Liisa for her assistance and everything else.

Juha Karvonen
Tampere, Finland, April 2016

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The book does not provide actual hints on wine growing, but instead explains in plain language how the current northern growth conditions differ from the growth conditions in the traditional viticulture countries, and what requirements they impose on northern viticulture as well as how climate change will influence them.

Contents:

- Requirements for viticulture in the north
- A thick layer of snow is a winegrower's friend
- Planting depth of grapevines in the Baltic Sea region
- The growth cycle of grapevines at 60°N
- High latitudes and high altitudes viticulture
- Impact of climate change on northern viticulture

