

## **History of the 2<sup>nd</sup> edition of the Digital Atlas of the Wine-Growing Regions of Hesse**

The preface of the 1<sup>st</sup> edition describes the long path towards producing an “Atlas of the Wine-Growing Regions of Hesse“. First talks between the director of the former State Geological Survey (Landesamt für Bodenforschung, F. Michels) and representatives of the Geisenheim Research centre (J. Steinberg) and the Agency of Viticulture (W. Buxbaum) already took place in 1945/46. H.-H. Pinkow then began surveying in 1947. The foreword of the 1st edition states: “We must be grateful for the pioneering work carried out by H.-H. Pinkow, who established systematic, large-scale vineyard soil surveying and recognized the relationship between rootstocks and soil type“. Following the sudden death of Pinkow, the work was continued by H. Zakosek and E. Bargon from 1953/54 onwards. This also marks the time when the Agricultural Meteorological Research Station in Geisenheim (N. Weger) became involved in the project. The “Vineyard Site Atlas” was published in 1967 by H. Zakosek.

In 1989, H. Zakosek, H. Becker and D. Hoppmann suggested publishing a second edition of the meanwhile out-of-print 1<sup>st</sup> edition. However, many new aspects concerning environmental protection and quality assurance as well as cover-cropping systems for alleys and vineyard site quality were already being discussed at this time and suggested for inclusion in the new atlas. At a later stage the list of important topics was extended to include additional environmental aspects as well as available water content, soil erosion and nitrate leaching. These very complicated studies were especially supported by the former Ministry for Agriculture and Forests in Hesse.

Viticultural requirements have changed substantially since publication of the first viticultural survey. More attention has been placed on issues related to soil management systems and quality as-

surance both for ecological as well as economical reasons. The extended volume of data in connection with newly developed calculation and evaluation schemes enable the winegrowers to assess the risks of changing the soil management system. At the same time governmental soil conservation agencies and water authorities are provided with a professional basis for regional planning. The atlas contains the following maps and texts:

### **Viticultural and protected areas**

- The Vineyard Locations (Map: A. BOOSS & C. PRESSER; text: A. BOOSS)
- Water Protection Areas (text: J. GRIMM)
- Landscape Protection (text: C. PRESSER)

### **Climate**

- Solar Radiation (Map and text: D. HOPPMANN)
- Temperature (Map: D. HOPPMANN)
- Wind Risk (Map: D. HOPPMANN; text: H. JAGOUTZ)
- Cold Air Risk (Map: D. HOPPMANN)
- Late Frost Risk -2/-4°C (Map: W. BAUER & A. MAAS; text: H. JAGOUTZ)

### **Soil, Relief and Location**

- Soil groups (Map: E. THIEL; text: K. FRIEDRICH & K.-J. SABEL)
- Available Water Content (Map and text: T. ZIMMER)
- Slope and Aspect (Maps: T. HENS)
- Vine Variety and Location (text: H. BECKER †, updated by J. SCHMID and R. RIES)

### **Risks and Potential**

- Potential Nitrate Leaching Risk (Map and text: K. EMDE)
- Potential Erosion Risk (Map: K. EMDE & O. LÖHNERTZ; text: K. EMDE)
- Water Stress and Permanent Cover-Cropping (Map and text: B. HOFMANN)
- Potential Must Weights (Map: and text: D. HOPPMANN)

An exact demarcation of “Erstes Gewächs“ (First Growth) locations in the Rheingau was carried out in 2000 on the basis of the model for estimating potential must weight. This classification was implemented by the Viticultural Society of the Rheingau (Rheingauer Weinbauverband). Since 1999, the winegrowers of the Rheingau region can market select wines with the designation “Erstes Gewächs“. According to the demands of the Viticultural Society of the Rheingau, a site must achieve a potential must weight of 83° Oechsle in order to qualify for the designation. Approximately one third of the vineyards of the Rheingau are classified as “Erstes Gewächs.“

The present edition provides an optimum basis for further discussions in relation to the description of origin, signified by the term “Terroir” in French viticulture. The consequent continuation of the project including the digitalization of the maps and implementation of GIS technology opens up a wide range of new application fields. The integration of geo-data contained in the atlas in a geographic information system enables the dissemination of the maps in a variety of media including CD-ROM and internet and forms a cost-effective basis for further developments.

The thematic maps form the mainstay of the Digital Atlas of the Wine-Growing Regions of Hesse included in this publication. These interactive maps can be accessed via a web-based surface. The maps are also provided in print versions for high resolution outputs. Apart from the maps, the CD-ROM also includes the atlas text as well as the out-of-print first edition.

The new edition of the Digital Atlas of the Wine-Growing Regions of Hesse is a compendium, which will provide the necessary information for a wide variety of viticultural issues. Over the long period of production, many people have been involved in the individual aspects of the Vineyard Site Atlas and thus contributed to its success. We sincerely thank all the following persons for their valuable contributions:

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