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First attempts with Cranberry cultivation in Germany

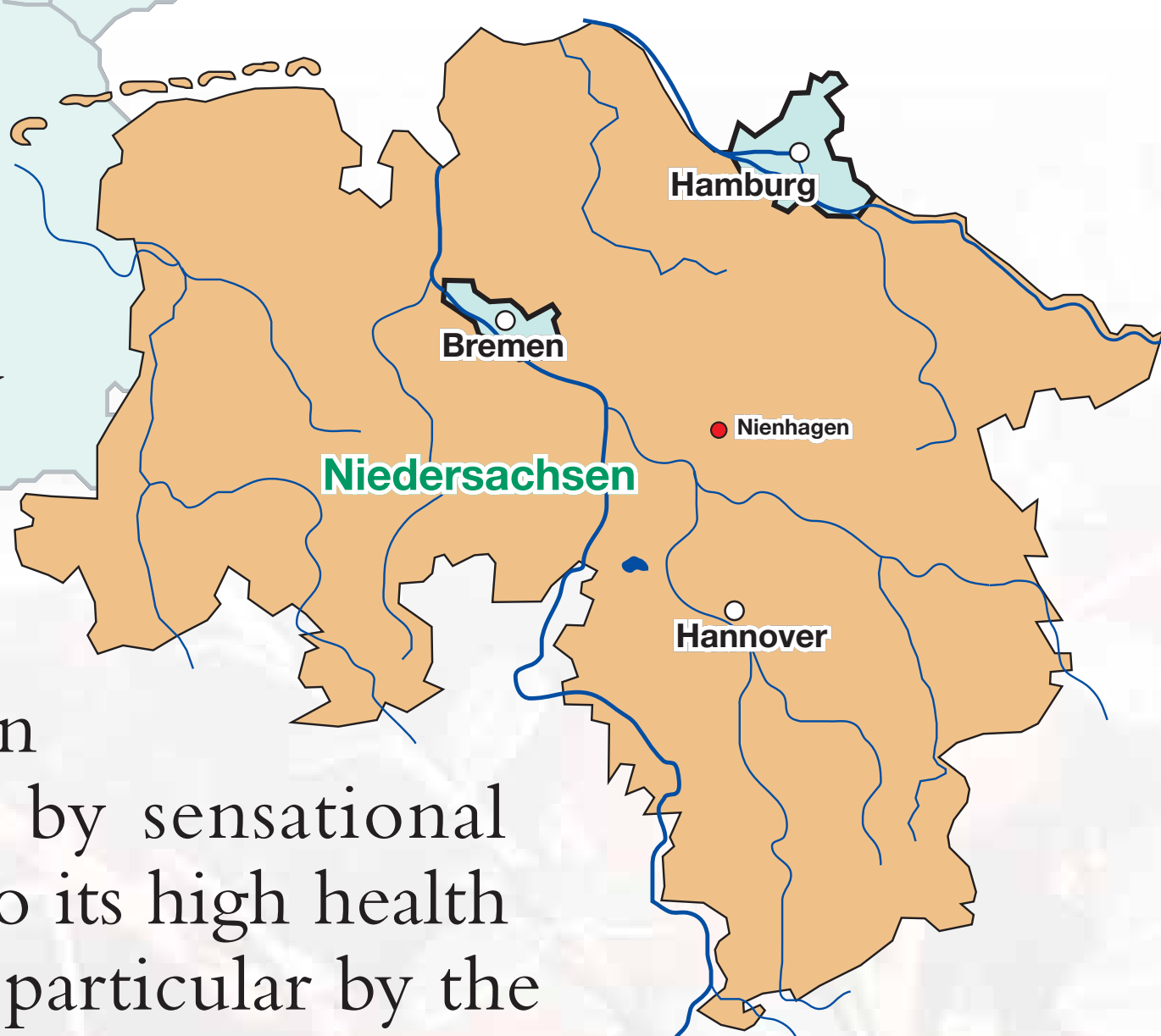
Introduction

This poster reports on the first attempts by our Farm & Nursery to cultivate cranberries in Germany on commercial scale. For the last 40 years, the focus in the family business of Wilhelm Dierking Beerenobst has been on the cultivation of *Vaccinium corymbosum*. However, we have always strived to test other *Vaccinium species* in our trial fields for their commercial potential. During this process, we have often been able to visit cranberry bogs. This unique plant and its fruit has captured our imagination and confronted us with the challenge of testing cultivation and marketing methods which can be maintained under the conditions prevailing in Europe and in Germany – a territory in which cranberries were, broadly speaking, still unknown to both consumers and marketers until a few years ago.

How it all began...

Encouraged by Prof. Dr. Liebster, who in 1968 in his book 'The Cranberry' mentions cultivation attempts in Germany at the beginning of the 20th century, Wilhelm Dierking Senior in 1973 set up a plot of cranberry mother plants containing 25 varieties and constructed a cranberry bog – precisely along the lines of the American model. At the same time, Munich University were carrying out culture trials on a marshland site. However, the marketing of the fruit, which was unknown in Europe, proved at that time to be difficult, as the berries are not intended for fresh consumption.

It was not until the middle of the nineties that passion for our cranberry project was re-ignited, motivated by a fascination with this fruit which had been strongly stimulated by sensational discoveries relating to its high health value, and driven in particular by the conviction that **millions of Americans who love cranberry products cannot be wrong!**



A Timeline

1997 – 1999

cultivar selection · propagation · site preparation

To start with a new specialty crop meant:

- to collect as much knowledge as possible about the culture
- to keep the number of mistakes made in the culture at the start to a minimum
- to select suitable varieties and growing sites
- to develop a successful marketing strategy.

The criteria for the choice of variety were:

- early ripening (danger of early frost in September)
- high yield and good fruit size
- disease resistance
- shelflife
- winter hardiness (no snow cover)

The trial area used by the Technical University in Munich is today still offering us the opportunity to observe cultivar characteristics. The test plots include the following cultivars: **Aviator, Bain McFarlin, Beckwith, Ben Lear, Black Veil, Bergman, Centennial, Centerville, Early Black, Franklin, Howes, McFarlin, Pilgrim, Searles, Shaws Success, Stevens, Wilcox.**

1999 – 2001

Growth & development · the first crop

For our own planting we chose rooted cuttings which display better drought resistance than unrooted vines (main varieties: 'Stevens', as well as 'Black Veil', 'Crowley' and 'Early Black'). Spring (after late frost) appeared to us to be the appropriate planting time. Planted at 20 cm centres, 250,000 plants per hectare were required. This density of planting produced fast soil coverage.

Hand weeding created no problem during the first two years. The former pine-forest location is naturally acid and sandy with relatively low pressure from weeds. Pine forest offers wind protection, while overhead sprinklers ensure frost protection and irrigation during periods of drought. To cope with the demands of the size of our plantation, we imported a dry-harvest machine (Darlington) with which harvesting was performed without any problems. 86 % of the berries harvested by machine are suitable for fresh market. For process use (fruit juice) only brown or white berries are rejected, as a result of which the yield of usable fruit is increased to 94 %. The performance of the machine on the young cranberry bog was 275 kg per hour during the first harvest.

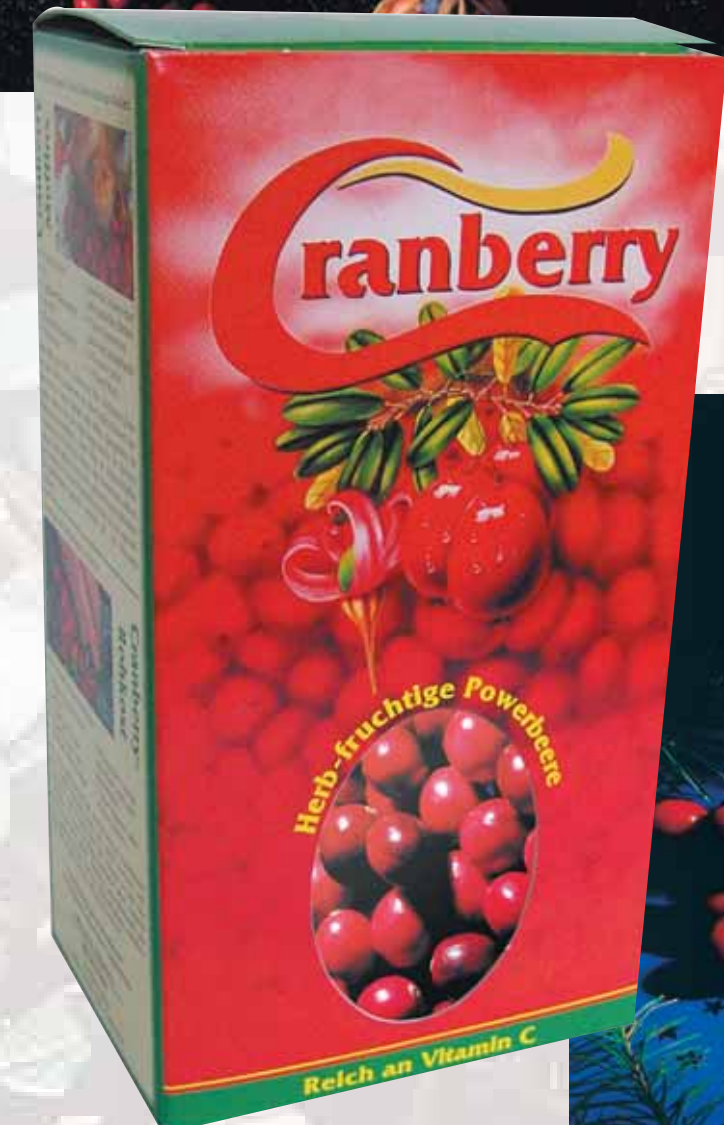


2001–2004

Harvesting & Marketing

We used the period of the establishing phase during which there were still small yields to make contact with marketers and processors and to introduce various advertising measures: we see the production of info flyers, posters, videos, website information, a booklet of recipes, our 'Cranberry Cool' nectar (50 % fruit) and the marketing of cranberry plants as an important contribution to increasing the public's awareness of cranberries. At exhibitions and trade shows we are pleased to present the cranberry plant and cranberry fruit, as well as cranberry products. In this way, we are able to obtain valuable insights into the way in which consumers react to this largely unknown fruit.

Today we are selling cranberries in punnets, paper boxes or wooden baskets to wholesalers, to the catering industry and to private consumers. Each pack contains information on health value, recipes and a product information telephone number which consumers are making good use of. The trade is enthusiastic about the cranberry's long storage capability and the advertising aids which accompany deliveries.



Varieties



'Bergman':
early, very good storage capability



'Stevens':
mid-season, high yields, large fruit, good color



'Pilgrim':
late, very large fruit

Cultivar	Comments	Yield (g/m ²) on young planting (Fiedler 1975-1977)	Berry wt g 2001 Hv date	Rejected fruit after 3 months at 10°C 2001 Hv date
Beckwith	Pleasant mild flavor	406	1,7	28 %
Bergman	Even color	480	1,05	4 %
Early Black	Round berry, dark red	382	1,27	37 %
Franklin	Very tart	503	1,05	14 %
Mc Farlin	Large berry, pleasant mild flavor	526	1,87	9 %
Pilgrim	Very large, seedy	600	1,98	11 %
Searles	Mild flavor, uneven color	473	1,38	26 %
Stevens	Early mid-season, uneven color & shape	589	1,21	27 %
Wilcox	Drop shape	326	1,1	21 %

Summary & Acknowledgements

With the first considerable large crop and completion of a new cultivation area, our cranberry project is now entering the second, no less exciting phase. We do not claim to have done everything correctly. Our only priority is that we would like to see this specialty crop growing in Germany.

Our thanks go to the people who have awakened in us a love and enthusiasm for cranberries:

**Prof. Dr. Liebster
Wilhelm Dierking sen.
Hans Fiedler**

The associated fascination was not long in coming. Nobody who has once experienced the blessing of a cranberry harvest will fail to be captivated.

