HortScience 28(12):1186–1187. 1993.

"Peach and Nectarine Varieties"-A Hypertext Index

W.R. Okie
U.S. Department of Agriculture, Agricultural Research Service, Southeastern Fruit and Tree Nut Research Laboratory, Byron, GA 31008

Additional index words. Prunus persica, cultivar

Abstract. "Peach and Nectarine Varieties" is a self-contained computer program describing more than 600 varieties and their performance in the southeastern United States. The information can be accessed in various ways, including searching for any word or name. A Master Index of names and synonyms lists more than 6000 names used in the United States, plus many foreign names. This index includes pedigree, origin, and a coded description. General information is included regarding peaches and nectarines. All North American breeding programs are chronicled. The program is available for MS-DOS computers with an EGA or VGA monitor, and may be freely distributed.

Hypertext is a concept that implies nonlinear reading of a document. Personal computers and hypertext-authoring programs allow this concept to be put into practice. This paper describes a hypertext version of a bulletin covering peach and nectarine *[Prunus persica* (L.) Batsch] varieties.

The most comprehensive bulletin on peach varieties was produced by U.P. Hedrick ≈75 years ago (Hedrick, 1917). He described 2181 peach varieties known in the United States at that time. In 1920, the American Pomological Society began publishing short variety descriptions of peaches and other fruits in the proceedings of their annual meetings. Similar lists were published by R.M. Brooks and H.P. Olmo, beginning with the *Proceedings of the American Society for Horticultural Science* in 1944, and continuing through the present in *HortScience.* A summary book was published in 1972 (Brooks and Olmo, 1972). None of these lists, however, are complete, up-to-date, or easily accessible now because most are out of print. More-modest publications solely about peaches, such as that of Savage and Prince (1972), and European bulletins (Bellini and Scaramuzzi, 1976; Della Strada et al., 1984; Hugard and Saunier, 1965), also have been produced.

The bulletin of Savage and Prince (1972) has been updated recently and expanded to cover important modem peach and nectarine varieties, including all varieties released by public breeders in North America. A hypertext version (Peach and Nectarine Varieties), described here, is being made available, in addition to a more-conventional format as a U.S. Dept. of Agriculture (USDA) agricultural handbook (Okie, 1994).

Description

"Peach and Nectarine Varieties" contains general information about peaches and their characteristics. Fruit, flower, and tree characteristics are described. The discussion of chilling requirement includes an equation for estimating chilling based on monthly temperatures and a map showing average annual chilling accumulations in the United States. Leaf gland and flower types, and fruit shapes are shown in graphic images. A complete listing of North American peach breeding programs includes names and tenures of the breeders and the varieties released. These listings also can be accessed via a color-coded U.S. map. Major private breeders are listed as well. Acreages of major varieties are given for 13 states and provinces.

More than 600 varieties are described in some detail (Fig. 1) in Part 1. Complete pedigrees are shown where they are known, as are

Received for publication 31 Mar. 1993. Accepted for publication 16 July 1993. Use of trade names in this paper does not imply endorsement by the USDA. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked *advertisement* solely to indicate this fact.

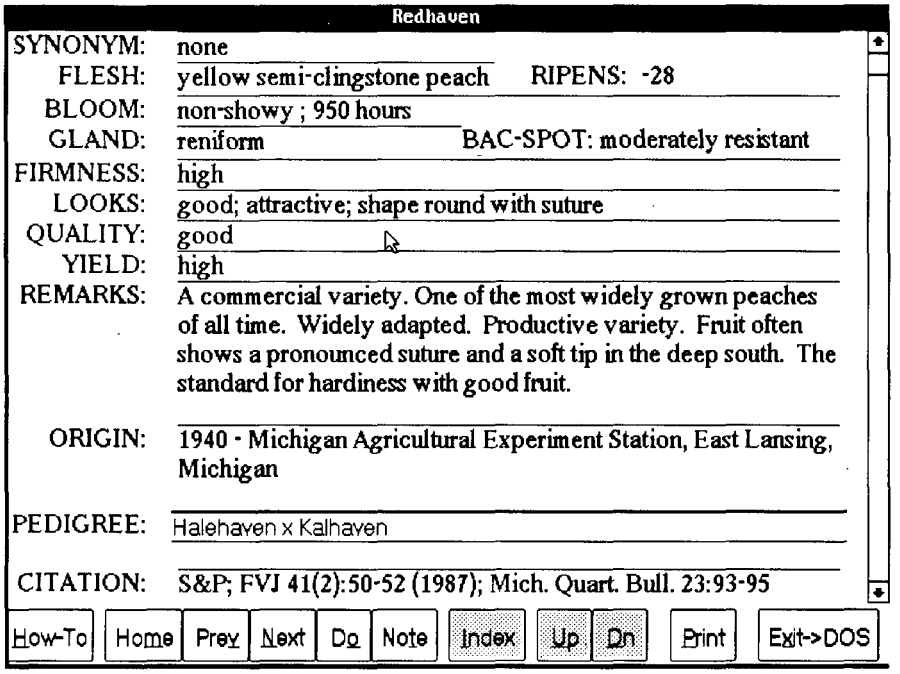

Fig. 1. Sample peach variety description found in Part 1 of "Peach and Nectarine Varieties."

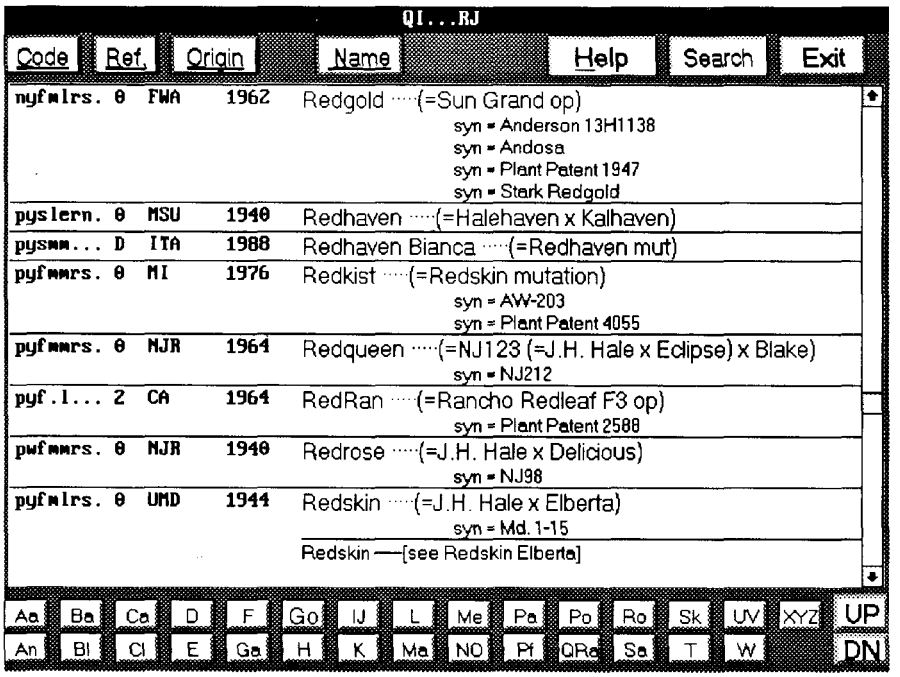

Fig. 2. Sample listing from the master index found in Part 2 of "Peach and Nectarine Varieties."

references to where the variety is described. Variety performance in the southeastern United States is discussed for those tested there. Several indices are provided to facilitate access to the descriptions in Part 1. An alphabetical index presents the names in a single list. An index of breeding programs allows the user to access a description from a list of releases from a program. A similar index allows access via tables of production figures for key states. A graphical tree arranged by type (peach or nectarine), flesh color, and chilling requirement allows the user to call up a list of varieties in each category. Each list is presented in order of ripening, so that the user can see varieties that fit a certain production window. The list also indicates degree of pit adhesion, leaf gland type, and bloom type to allow it to be used to help identify an unknown variety.

Part 2 of the bulletin consists of a cross-referenced listing of all known names used in North America for peach and nectarine varieties. For each variety, brief codes (see left column of Fig. 2) give pertinent characteristics (type, flesh color, freeness, bloom time, time when ripe, gland, bloom type, other), date and state or country of origin, and pedigree, where this information is known. Synonyms and selection numbers are listed under the primary name as well as alphabetically elsewhere (Fig. 2). More than 6000 names and 5000 synonyms are included.

Use

The hypertext structure allows the user to jump from any occurrence of a variety name, such as in a table, index, or pedigree, to the description of that variety in Part 1 (for those varieties listed in Part 1). The user can easily backtrack his/her steps at any time, or view a list of the topics that have been visited. A Boolean search capability allows the user to find all occurrences of any term or terms and view them sequentially. For example, any use of 'Elberta' can be viewed, allowing the user to see all varieties with 'Elberta' anywhere in the pedigree or in comments.

The variety document was composed using HyperWriter (Ntergaid, Fairfield, Corm.). A royalty-free reader program (HyperReader) is distributed with the document. The program runs on a DOS computer with a hard drive. The current version requires a VGA (preferably) or EGA graphics adapter for the graphics. The program may be usable, but less readable, on other video types. Copies of this program are available on diskette at a modest cost from the American Pomological Society, 102 Tyson Bldg., Dept. of Horticulture, The Pennsylvania State Univ., University Park, PA 16802.

Program navigation is enhanced by the use of a mouse. When the files are expanded for use, they occupy about 2.5 MB of disk space. The document and reader may be freely copied. Although efforts have been made to verify the information in this index, neither the USDA nor I guarantee its accuracy.

Literature Cited

Bellini, E. and F. Scaramuzzi. 1976. Monogratia delle principali cultivar di pesco. vol. II. Florence, Italy.

Brooks, R.M.and H.P. Olmo. 1972. Register of new fruit and nut varieties. 2nd ed. Univ. of California Press, Berkeley.

Della Strada, G., C. Fideghelli, A. Liverani, F. Monastra, and L. Rivalta. 1984. Monografia di cultivar di pesco da consumo fresco. Ist. Sper. Frutt.,Rome.

Hedrick,U.P.1917. The Peaches of New York. New York (Geneva) Agr. Expt. Sta. Rpt. 1916. Part II.

Hugard, J. and R. Saunier. 1965. Monographie des principalesvariétésdepéchers.Périoded'études: 1950-1962. INRA, Paris.

Okie, W.R. 1994. Peach and nectarine varieties: Southeastern performance and North American index. U.S. Dept. Agr. Agr. Hdbk. (In press.)

Savage, E.F. and V.E. Prince. 1972. Performanceof peach cultivars in Georgia. Univ. of Georgia Agr. Expt. Sta. Res. Bul. 114.