

Introduction

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The north american pawpaw (*Asimina triloba*) has gained much attention in recent years as a potential high-value tree-fruit crop and as a landscape component. With this increased public awareness of pawpaw, interest also grew in holding a conference where recent advances in pawpaw production could be discussed. On 21–22 Sept. 2001, The Second International Pawpaw Conference, sponsored by Kentucky State University (KSU) and The PawPaw Foundation (PPF), was held in Frankfort, Ky. More than 130 scientists, nurserymen, entrepreneurs, and enthusiasts attended the conference and shared information about the production and use of pawpaw. The conference was a combination of invited speakers, submitted talks and posters, and roundtable discussions focusing on progress in pawpaw: regional variety trials, variety development, seedling and clonal propagation, germplasm collection, postharvest fruit physiology and handling, marketing and product development, and anti-cancer and pesticidal compounds. In addition to presentations on pawpaw, the conference also offered an opportunity to taste pawpaw fruit, tour the KSU pawpaw orchards, view demonstrations on how to propagate pawpaw, and allowed participants a chance to sample pawpaw recipes from the chefs of one of Kentucky's finest restaurants, The Oakroom at Louisville's Seelbach Hilton.

For more than 10 years, KSU and PPF have cooperated on projects to advance our understanding of the pawpaw. The pawpaw program in the KSU Land Grant Program was initiated by Brett Callaway in 1990 (Callaway, 1992) and was expanded by Desmond Layne from 1993 to 1997 (Layne, 1996). The program has been under the direction of Kirk Pomper since 1998 (Pomper et al., 1999). Current extension activities at KSU include a web site (Pomper, 2003) for the dissemination of information on pawpaw to scientists and growers, an annual pawpaw field day which has been presented each fall since 1998, and responses to over 300 phone calls, emails, and letters each year. The current objectives of the research program have been aimed at 1) understanding the fruit ripening process, 2) conducting the Pawpaw Regional Variety Trial (PRVT) in cooperation with PPF and other institutions, 3) optimizing seedling and clonal propagation methods, 4) enhancing pawpaw germplasm through collection and assessment, and 5) developing orchard management recommendations. Strong inter-institutional efforts, especially between researchers at KSU and the University of Kentucky (UK), have played an important role in advancing our understanding of pawpaw. Cooperative relationships with 12 universities and private individuals were formed to conduct the PRVT, including Gerry Brown and Dwight Wolfe of UK. Cooperative research projects between KSU researchers and Douglas Archbold and Robert Geneve of UK have lead to a better understanding of the pawpaw fruit ripening process and improved propagation methods. In 1994, KSU was approved as the USDA National Clonal Germplasm Repository for pawpaw (*Asimina* species), or gene bank; therefore, germplasm evaluation, preservation, and dissemination have been a high priority for the program (Layne,

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1996). There are presently over 1700 accessions (trees) from 17 states and over 40 varieties contained in the repository orchards. Molecular marker methodologies have been used to fingerprint pawpaw varieties and assess genetic diversity across the pawpaw's native range (Huang et al., 2000; Pomper et al., 2003). Pawpaw seedlings with promising fruit characteristics have been identified in the repository collection and have been propagated for further evaluation as potential varieties for release by KSU.

The PPF was founded in 1988 by R. Neal Peterson as a nonprofit organization dedicated to research and development of the pawpaw as a new fruit crop for farmers and consumers. Past presidents of the PPF include R. Neal Peterson, Paul Weatherly, and Desmond Layne; the current president is Kirk Pomper. The PPF currently has about 300 members and has been active in collecting, evaluating, and preserving pawpaw germplasm and also publishes a semi-annual newsletter *From The PawPaw Patch*. Through the research activities of R. Neal Peterson, the PPF pawpaw breeding program was initiated and advanced selections from the program are being tested in the PRVT. The first International Pawpaw Conference was hosted by PPF on 9 to 11 Sept. 1994, at the Western Maryland Research and Education Center, Keedysville, Md. There were 45 attendees at the conference; a 3-fold increase in attendance at the Second International Conference 8 years later demonstrates the increasing interest in pawpaw.

Based on discussions at the conference, some of the largest challenges that face the development of a commercial pawpaw industry are: developing a grower base, improving orchard establishment rates, rootstock development, improving clonal propagation methods, new variety development, postharvest handling of fruit, and developing an overall marketing strategy. The KSU pawpaw program, PPF, and other private and university programs are attempting to address these challenges.

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