Apple Rootstocks and Cultivars eXtension Project

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Orchard owners and home gardeners looking for the best answers to their questions about apple trees soon will have free, easy access to all the information they need, thanks to a land grant university project funded by the U.S. Department of Agriculture.

EXtension is an interactive online learning environment that delivers researched-based knowledge developed by the nation's land-grant university experts. Penn State University is a major contributor to eXtension. The new eXtension portal will be named "The Community of Practice (CoP) for Apple Rootstocks and Cultivars."

History of eXtension

In 2001 a decision was made at the national level to transform the way Cooperative Extension delivers information through technology. After a few years of developing the administrative structure for the system, in 2004 The Cooperative Extension system adopted an assessment to provide project start-up funds for several years and in 2005 a prototype was introduced. In 2007 the full system was launched to provide access to the land-grant university system with rules of operation, governing committee, staff and long-term implementation plan.

Most fruit growers are familiar with the regional project NC- 140, which evaluates rootstocks and NECC-1009, formerly NE-183, which evaluates apple cultivars. These projects have been very successful and most recommendations in North America are based on results from these two projects. Summaries of these projects are presented at grower meetings, newsletters and trade journals, but growers in non-cooperating states may receive limited information. Data are summarized in detail in scientific journals, but most nursery operators, growers, and consumers do not have access to these publications. In 2009 a subset of NC-140 cooperators wrote a successful eXtension proposal, which is funded through the Specialty Crop Research Initiative. Our goal is to develop a web-based information system to summarize the tremendous amount of information we have generated for apple rootstocks and cultivars. Tools will be developed to help several stakeholder groups, including nursery operators, fruit growers, county educators, Master Gardeners, and home gardeners to make decisions concerning rootstocks and cultivars. This project is focused on the eastern U.S. because western growing conditions are different than in the East.

The Apple Rootstock and Cultivar Project

The first step was to develop a Community of Practice (CoP). The project is led by researchers at the University of Minnesota and Penn State University, with assistance from co-leaders from West Virginia University, University of Massachusetts, University of Missouri, North Carolina State University, Cornell University and The Ohio State University. Members from Penn State include Rob Crassweller and Rich Marini, Department of Horticulture and Daniel Foster, Department of Agricultural & Extension Education.

We have monthly virtual meetings, using Adobe Connect or Skype, and we have one face-to-face meeting each year. We are also organizing an advisory committee of nursery and orchard representatives to help evaluate our products as they are developed and to provide suggestions to make the system more user-friendly. In November 2010 we met in conjunction with the NC-140 technical committee and identified the types of information we want to include on our website. Web development specialists at the University of Minnesota have been providing guidance to help us develop these products. Part of this process was to develop 50 FAQs

for rootstocks and we will do the same for cultivars. These are "Commonly Asked Questions" about rootstocks along with answers to the questions and the answers will be reviewed by members of the CoP before the site is launched. This peer-review process will provide quality control. We are also developing a large collection of pictures related to rootstocks and cultivars. Over the next two years we plan to develop videos and searchable data bases to go along with the pictures and user-friendly interactive products to provide location-specific information about rootstocks and cultivars. We expect that over time the CoP will expand to include other apple-producing regions, additional aspects of production, and complementary consumer information.

Another aspect of this project is to conduct a needs assessment to determine what types of information our audience wants and which formats would be useful. To obtain these types of information a survey was developed and this survey will be distributed to growers at winter meetings. So those of you attending the Mid-Atlantic Fruit & Vegetable Conference will be asked to complete this survey – it should only take about 10 minutes. The information will be summarized and interpreted at Penn State University, and we will be able to use this information to determine what types of information growers feel are important, where they currently get their information and we will be able to compare results from different production areas and different demographic groups. Once the information is developed and disseminated among the stakeholder groups, a program evaluation will be conducted. The stakeholder groups will again be surveyed to determine if the desired information has been adequately disseminated, is easily understandable, and is in an accessible format. During the next decade a lot of pomological expertise will be lost to retirement and without a national effort to archive our collective knowledge, the information will be lost. We are excited about this opportunity to develop a new method of summarizing and delivering information in a way that can easily be updated as new information becomes available. To be successful, we will need cooperation from nurserymen and apple growers, so we hope you will be willing to participate in our surveys this winter. You can learn more about the eXtension program at about.extension.org.

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