

## **Breeding of Multiple Disease Resistant Apples: Present Status and Future Prospects**

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Our apple breeding program emphasizes the development of superior apple varieties possessing resistance to apple scab, cedar apple rust, powdery mildew, and fire blight. Laboratory tests to screen for resistance result in high levels of resistance in the field. A brief overview will be presented on the breeding process for production and testing of advanced selections. Cornell's program released 'Liberty' and 'Freedom' and has made New York selections available for test

under a non-distribution agreement through the New York State Testing Association. Some of the earlier NY advanced selections are being tested by researchers and growers. The current status of these selections will be detailed and additional promising candidates will be discussed. Information will be presented on field performance, subjective taste evaluations, and quantitative assessment of soluble solids, acidity, firmness, and storage potential.

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## **Extension Educational Outreach Programs Promoting the Development of a Sustainable Apple Production System**

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A variety of Extension education outreach programs continue to spread information worldwide on the Development of a Sustainable Apple Production System for the Northeast. Twenty-seven Extension publications, research reports and conference proceedings were published along with thirteen refereed journal articles. Over seventy-six meetings, conferences, workshops and tours were conducted with 18,350 people directly participating in these extension educational outreach activities. Utilizing television and

radio media over 300,000 people in the various listening and viewing audiences became aware of this project. The 'Management Guide for Low-Input Sustainable Apple Production' was published with 1,665 copies being sold to date. The bi-annual 'Northeast LISA Apple Production Newsletter' continues to generate worldwide interest in sustainable apple production with 1,135 active subscribers. Presentations on Sustainable Apple Production Systems were presented at eleven professional meetings.

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