

CURRICULUM VITAE

for

WESLEY ROBERT AUTIO

January 22, 2019

Stockbridge School of Agriculture
205 Paige Laboratory, 161 Holdsworth Way
University of Massachusetts Amherst, Amherst MA 01003-9286 USA
Telephone: 413-545-2963 – Cell phone: 413-348-8557 – FAX: 413-577-0242
Email: autio@umass.edu – Web page: <http://people.umass.edu/autio/>

Education

Lake Region High School, Naples, Maine (valedictorian), 1975.
University of Maine, Orono, September, 1975 to May, 1977.
Virginia Polytechnic Institute & State University, B.S., Horticulture (*summa cum laude*), 1979.
University of Massachusetts, M.S., Plant & Soil Sciences, 1982.
University of Massachusetts, Ph.D., Plant & Soil Sciences, 1985.

Experience

Alpha Tau Gamma Fred P. Jeffrey Professor and Director, Stockbridge School of Agriculture, 2016 to present.
Director, Stockbridge School of Agriculture, 2012 to present.
Assistant/Associate/Full Professor, University of Massachusetts, 1985/1991/1997 to present.
Extension Tree Fruit Specialist, University of Massachusetts, 1985 to present.
Extension Fruit Team Leader, University of Massachusetts, 1985 to 2012.
Agriculture & Landscape Program Co-director, University of Massachusetts, 2003.
Agroecology Program Coordinator, University of Massachusetts, 1996 to 1998

Thesis and Dissertation

Autio, W. R. 1982. *Effects of Aminoethoxyvinylglycine on Maturation, Ripening, and Storage of Apples*. M.S. Thesis. University of Massachusetts, Amherst.
Autio, W. R. 1985. *Chilling Sensitivity During Tomato Fruit Ripening*. Ph.D. Dissertation. University of Massachusetts, Amherst.

Awards and Honors

Outstanding Outreach Award, College of Food & Natural Resources, University of Massachusetts Amherst, 1999.
Group Honor Award for Excellence in Multi-State Research, USDA, Project NE-183, 2000.
Award for Excellence to Multi-State Research, Northeast Regional Association of State Agricultural Experiment Stations, Project NE-183, 2000.
Citation of Appreciation, American Society for Horticultural Science, Services as an associate editor for *HortScience*.
Shepard Award Co-recipient, American Pomological Society, article by Reighard et al., 2002.
Ronald J. Prokopy Award, Massachusetts Fruit Growers' Association, In recognition of outstanding service to Massachusetts agriculture, 2010.
Jackson Dawson Medal, Massachusetts Horticultural Society, 2011.
Award for Excellence in Multi-State Research, USDA, Project NC-140, 2015.
Alpha Tau Gamma Fred P. Jeffrey Professor and Director, Stockbridge School of Agriculture, University of Massachusetts Amherst, 2016.

Refereed Journal Articles (118)

- Bramlage, W. J., D. W. Greene, W. R. Autio, and J. M. McLaughlin. 1980. Effects of aminoethoxyvinylglycine on internal ethylene concentrations and storage of apples. *J. Amer. Soc. Hort. Sci.* 105:847-851.
- Autio, W. R. and W. J. Bramlage. 1982. Effects of AVG on maturation, ripening, and storage of apples. *J. Amer. Soc. Hort. Sci.* 107:1074-1077.
- Lord, W. J., W. J. Bramlage, and W. R. Autio. 1985. The Marshall McIntosh. *Fruit Var. J.* 39:37-41.
- Autio, W. R. and W. J. Bramlage. 1986. Chilling-sensitivity of tomato fruit in relation to ripening and senescence. *J. Amer. Soc. Hort. Sci.* 111:201-204.
- Autio, W. R., S. A. Weis, and W. J. Bramlage. 1986. Development of forecasting equations for apple storage disorders: The Tobit model vs. classical linear regression. *HortScience* 21:474-475.
- Autio, W. R., W. J. Bramlage, and S. A. Weis. 1986. Predicting the occurrence of poststorage disorders of Cox's Orange Pippin and Bramley's Seedling apples. *J. Amer. Soc. Hort. Sci.* 111:738-742.
- Autio, W. R. and F. W. Southwick. 1986. The effects of rootstock and stem piece on yield, tree size, and anchorage of 'Delicious' apple trees. *Fruit Var. J.* 40:128-133.
- NC-140. 1987. Growth and production of 'Starkspur Supreme Delicious' on 9 rootstocks in the NC-140 cooperative planting. *Fruit Var. J.* 41:31-39.
- Autio, W. R., K. M. Carroll, W. M. Coli, K. P. Leahy, and D. R. Cooley. 1988. An inexpensive, microcomputer-based bulletin board system for extension programs. *HortScience* 23:623-624.
- Autio, W. R. and W. J. Lord. 1988. Tree characteristics, fruiting, and mineral nutrition of apple trees on M.27 EMLA and three interstocks. *HortScience* 23:983-985.
- Greene, D. W. and W. R. Autio. 1989. Evaluation of benzyladenine as a chemical thinner on 'McIntosh' apples. *J. Amer. Soc. Hort. Sci.* 114:68-73.
- Autio, W. R., W. J. Bramlage, and W. J. Lord. 1990. Ripening and storability of 'Marshall McIntosh' apples. *Fruit Var. J.* 44:36-40.
- Greene, D. W. and W. R. Autio. 1990. Evaluation of ripening and fruit quality of 'Gala' and 'McIntosh' apples at harvest and following air storage. *Fruit Var. J.* 44:117-123.
- Autio, W. R. and D. W. Greene. 1990. Summer pruning affects the yield and improves the fruit quality of 'McIntosh' apples. *J. Amer. Soc. Hort. Sci.* 115:356-359.
- Greene, D. W., W. R. Autio, and P. Miller. 1990. Thinning activity of benzyladenine on several apple cultivars. *J. Amer. Soc. Hort. Sci.* 115:394-400.
- Greene, D. W. and W. R. Autio. 1990. Vegetative responses of apple trees following benzyladenine and growth regulator sprays. *J. Amer. Soc. Hort. Sci.* 115:400-404.
- NC-140. 1990. Early performance of 'Starkspur Supreme Delicious' on 16 rootstocks in the NC-140 Cooperative Planting. *Fruit Var. J.* 44:225-235.
- Autio, W. R., W. J. Lord, and P. L. M. Veneman. 1990. Performance of 'McIntosh' apple trees as influenced by rootstock and soil. *HortScience* 25:1219-1221.
- Autio, W. R. 1991. Rootstocks affect ripening and other qualities of 'Delicious' apples. *J. Amer. Soc. Hort. Sci.* 116:378-382.
- Autio, W. R. 1991. Contemporary evolution of the New England apple industry: Cultivar and rootstock trends. *Fruit Var. J.* 45:98-100.
- NC-140. 1991. Performance of 'Starkspur Supreme Delicious' on 9 rootstocks over 10 years in the NC-140 Cooperative Planting. *Fruit Var. J.* 45:192-199.
- NC-140. 1991. Performance of 'Starkspur Supreme Delicious' on 9 rootstocks at 27 sites over 10 years. *Fruit Var. J.* 45:200-208.
- Costante, J. F., W. R. Autio, and L. P. Berkett. 1991. Controlling apple replant disease in 'McIntosh' apple trees on various rootstocks. *HortScience* 26:604.
- Autio, W. R., D. W. Greene, D. R. Cooley, and J. R. Schupp. 1991. Improving the growth of newly planted apple trees. *HortScience* 26:840-843.
- Autio, W. R., J. A. Barden, and G. R. Brown. 1991. Rootstock affects ripening, size, mineral composition, and storability of 'Starkspur Supreme Delicious' in the 1980-81 cooperative planting. *Fruit Var. J.* 45:247-251.
- Rom, C. R., R. C. Rom, W. R. Autio, D. C. Elfving, and R. A. Cline. 1991. Foliar nutrient content of 'Starkspur Supreme Delicious' on nine clonal apple rootstocks. *Fruit Var. J.* 45:252-263.

- Greene, D. W., W. R. Autio, J. A. Erf, and Z. Y. Mao. 1992. Mode of action of benzyladenine when used as a chemical thinner on apples. *J. Amer. Soc. Hort. Sci.* 117:775-779.
- Autio, W. R. and J. F. Costante. 1992. Ripening and storage of the 'Liberty' apple. *Fruit Var. J.* 46:235-244.
- Greene, D. W. and W. R. Autio. 1993. Comparison of tree growth, fruit characteristics, and fruit quality of five 'Gala' apple strains. *Fruit Var. J.* 47:103-109.
- Autio, W. R. and F. W. Southwick. 1993. Evaluation of a spur and standard strain of 'McIntosh' on three rootstocks and one dwarfing interstem over ten years. *Fruit Var. J.* 47:95-102.
- Greene, D. W. and W. R. Autio. 1994. Notching techniques to improve branching of young apple trees. *J. Amer. Soc. Hort. Sci.* 119:678-682.
- Autio, W. R. and D. W. Greene. 1994. Effects of various growth-retarding treatments on apple tree growth, fruit maturation, and fruit abscission. *J. Hort. Sci.* 69:653-664.
- Prokopy, R. J., D. R. Cooley, W. R. Autio, and W. M. Coli. 1994. Second-level integrated pest management in commercial apple orchards. *Amer. J. Alternative Agric.* 9:148-156.
- Greene, D. W. and W. R. Autio. 1994. Combination sprays with benzyladenine to chemically thin spur-type 'Delicious' apples. *HortScience* 29:887-890.
- Marion, D, R. Christensen, and W. R. Autio. 1995. Moose damage in an apple orchard: An application of investment analysis. *J. Amer. Soc. Farm Man. Rural. Advis.:* 68-72.
- Warmund, M. R., W. R. Autio, J. A. Barden, J. N. Cummins, P. A. Domoto, C. G. Embree, R. L. Granger, F. D. Morrison, J. R. Schupp, and E. Young. 1996. Blackheart injury in Starkspur Supreme Delicious on 15 rootstocks in the 1984 NC-14 Cooperative Planting. *Fruit Var. J.* 50:55-62.
- NC-140. 1996. Performance of the NC-140 Cooperative Apple Rootstock Planting: I. Survival, tree size, yield and fruit size. *Fruit Var. J.* 50:6-11.
- NC-140. 1996. Performance of the NC-140 Cooperative Apple Rootstock Planting: II. A 10-year summary of TCA, yield and yield efficiency at 31 sites. *Fruit Var. J.* 50:11-18.
- NC-140. 1996. Horticultural characteristics of Starkspur Supreme Delicious apple on 15 rootstocks at 24 sites. *Fruit Var. J.* 50:18-24
- NC-140. 1996. Rootstock and scion cultivar interact to affect apple tree performance: A five-year summary of the 1990 NC-140 Cultivar/Rootstock Trial. *Fruit Var. J.* 50:175-187.
- Autio, W. R., R. A. Hayden, W. C. Micke, and G. R. Brown. 1996. Rootstock affects ripening, color, and shape of 'Starkspur Supreme Delicious' apples in the 1984 NC-140 Cooperative Planting. *Fruit Var. J.* 50:45-53.
- Autio, W. R., D. W. Greene, and W. J. Lord. 1996. Performance of 'McIntosh' apple trees on seven rootstocks over 10 years and a comparison of methods for presenting productivity. *HortScience* 31: 1160-1163.
- Cooley, D. R., J. W. Gamble, and W. R. Autio. 1997. Summer pruning as a method for reducing flyspeck disease on apple fruit. *Plant Disease* 18:1123-1126.
- Cooley, D. R. and W. R. Autio. 1998. Disease-management components of advanced integrated pest management in apple orchards. *Agricultural Ecosystems & the Environment* 66:31-40.
- Autio, W. R., J. R. Schupp, D. C. Ferree, R. Glavin, and D. L. Mulcahy. 1998. Application of RAPDs to DNA extracted from apple rootstocks. *HortScience* 33:333-335.
- Petillo, D., H. O. Hultin, J. Krzynowek, and W. R. Autio. 1998. Kinetics of antioxidant loss in mackerel light and dark muscle. *Journal of Agricultural and Food Chemistry* 46:4128-4137.
- Autio, W.R. 2000. Comparison of Pioneer Mac and McIntosh apples. *Journal of the American Pomological Society* 54:57-60.
- Marini, R.P., J.L. Anderson, W.R. Autio, B.H. Barritt, J.A. Cline, W.P. Cowgill, Jr., R.M. Crassweller, P.A. Domoto, D.C. Ferree, J. Garner, A. Gaus, G.M. Greene, C. Hampson, P. Hirst, M.M. Kushad, E. Mielke, C.A. Mullins, M. Parker, R.L. Perry, J.P. Privé, G.L. Reighard, T. Robinson, C.R. Rom, T.R. Roper, J.R. Schupp, E. Stover, and R. Unrath. 2000. Performance of Gala apple on 18 dwarf rootstocks: Five-year summary of the 1994 NC-140 Dwarf Rootstock Trial. *Journal of the American Pomological Society* 54:92-107
- Hirst, P.M., R.P. Marini, J.L. Anderson, W.R. Autio, B.H. Barritt, J.A. Cline, W.P. Cowgill, Jr., R.M. Crassweller, P.A. Domoto, D.C. Ferree, J. Garner, A. Gaus, G.M. Greene, C. Hampson, P. Hirst, M.M. Kushad, E. Mielke, C.A. Mullins, M. Parker, R.L. Perry, J.P. Privé, G.L. Reighard, T. Robinson, C.R. Rom, T.R. Roper, J.R. Schupp, E. Stover, and R. Unrath. 2001. Early performance of Gala apple on 18 dwarf and 4 semi-dwarf rootstocks growing at 24 sites in North America. *Acta Horticulturae* 557:199-205.

- Autio, W.R., J.L. Anderson, J.A. Barden, G.R. Brown, R.M. Crassweller, P.A. Domoto, A. Erb, D.C. Ferree, A. Gaus, P. Hirst, C.A. Mullins, and J.R. Schupp. 2001. Rootstock and scion interact to affect apple tree performance: Results from the 1990 NC-140 Cultivar/Rootstock Trial. *Acta Horticulturae* 557:41-46.
- Reighard, G.L., R.L. Andersen, J.L. Anderson, W.R. Autio, T. Beckman, R.D. Belding, G.R. Brown, W.P. Cowgill, Jr., D. Deyton, E. Durner, A. Erb, D.C. Ferree, A. Gaus, P. Hirst, M.L. Kaps, N.W. Miles, F. Morrison, S. Myers, R.L. Perry, C.R. Rom, W. Shane, B.H. Taylor, K. Taylor, C.S. Walsh, and M. Warmund. 2001. Five-year performance of 19 peach rootstocks at 20 sites in North America. *Acta Horticulturae* 557:97-102.
- Autio, W.R., J.L. Anderson, J.A. Barden, G.R. Brown, R.M. Crassweller, P.A. Domoto, A. Erb, D.C. Ferree, A. Gaus, P.M. Hirst, C.A. Mullins, and J.R. Schupp. 2001. Performance of Golden Delicious, Jonagold, Empire, and Rome Beauty apple trees on five rootstocks over ten years in the 1990 NC-140 Cultivar/Rootstock Trial. *Journal of the American Pomological Society* 55:131-137.
- Autio, W.R., J.L. Anderson, J.A. Barden, G.R. Brown, R.M. Crassweller, P.A. Domoto, A. Erb, D.C. Ferree, A. Gaus, P.M. Hirst, C.A. Mullins, and J.R. Schupp. 2001. Location affects performance of Golden Delicious, Jonagold, Empire, and Rome Beauty apple trees on five rootstocks over ten years in the 1990 NC-140 Cultivar/Rootstock Trial. *Journal of the American Pomological Society* 55:138-145.
- Hirst, P.M., W.R. Autio, J.A. Barden, G.R. Brown, R.M. Crassweller, P.A. Domoto, and J.R. Schupp. 2001. Performance of trees in the 1990 NC-140 Apple Cultivar/Rootstock Planting: Additional cultivars and rootstocks. *Journal of the American Pomological Society* 55:178-184.
- Domoto, P.A., W.R. Autio, G.R. Brown, D.C. Ferree, P.M. Hirst, C.A. Mullins, and J.R. Schupp. 2001. Blackheart injury in Golden Delicious, Jonagold, Empire, and Rome Beauty apple trees on five rootstocks in the 1990 NC-140 Cultivar/Rootstock Trial. *Journal of the American Pomological Society* 55:146-153.
- Autio, W.R., J.R. Schupp, C.G. Embree, and R.E. Moran. 2003. Early performance of Cortland, Macoun, McIntosh, and Pioneer Mac apple trees on various rootstocks in Maine, Massachusetts, and Nova Scotia. *Journal of the American Pomological Society* 57:7-14
- Porth, G., F. Mangan, W. Autio, and R. Wick. 2003. Evaluation of management strategies for clubroot (*Plasmiodiophora brassicae* Woron) in Brassicaceae. *Proceedings of the American Society for Tropical Horticulture* 46:78-80.
- Sandler, H., C. Demoranville, T. Bewick, and W. Autio. 2004. Effect of repeat annual applications of dichlobenil on weed populations and yield components of cranberry. *Weed Technology* 18:648-657.
- Sandler, H., C. Demoranville, and W. Autio. 2004. Economic comparison of initial vine density, nitrogen rate, and weed management strategy in commercial cranberry. *HortTechnology* 14:267-274.
- Reighard, G., J. Anderson, R. Andersen, W. Autio, T. Beckman, T. Baker, R. Belding, G. Brown, P. Byers, W. Cowgill, D. Deyton, E. Durner, A. Erb, D. Ferree, A. Gaus, P. Hirst, M. Kaps, N. Miles, F. Morrison, S. Myers, D. Ouellette, R. Perry, C. Rom, W. Shane, B. Taylor, K. Taylor, C. Walsh, and M. Warmund. 2004. Eight-year performance of 19 peach rootstocks at 20 locations in North America. *Journal of the American Pomological Society* 58:174-2002.
- Robinson, T., L. Anderson, A. Azarenko, B. Barritt, T. Baugher, G. Brown, J. Cline, R. Crassweller, P. Domoto, C. Embree, A. Fennell, D. Ferree, E. Garcia, A. Gaus, R. G. Greene, C. Hampson, P. Hirst, E. Hoover, S. Johnson, M. Kushad, R. Marini, R. Moran, C. Mullins, M. Parker, R. Perry, J. Prive, G. Reighard, C. Rom, T. Roper, J. Schupp, M. Warmund, W. Autio, W. Cowgill, K. Taylor, and D. Wolfe. 2004. Performance of Cornell-Geneva rootstocks across North America in multi-location NC-140 rootstock trials. *Acta Horticulturae* 658: 241-245.
- Vanden Heuvel, J. E., J. L. Robidoux, W. R. Autio, and C. C. Neto. 2005. Timing of partial defoliation affects carbohydrate concentration of vegetative tissue and concentration of phenolics in berries of potted De Chaunac (*Vitis* sp.) grapevines. *Canadian Journal of Plant Sciences* 85:703-708.
- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2005. Fuji and McIntosh apple tree performance after 5 years as affected by several dwarfing rootstocks in the 1999 NC-140 Rootstock Trial. *Journal of the American Pomological Society* 59:202-214.

- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2005. Fuji and McIntosh apple tree performance after 5 years as affected by several semidwarfing rootstocks in the 1999 NC-140 Rootstock Trial. *Journal of the American Pomological Society* 59:192-201.
- Hunsberger, L.K., W.R. Autio, C.J. DeMoranville, and H.A. Sandler. 2006. Mechanical removal of summer dodder infestations and impacts on cranberry yield. *HortTechnology* 16:78-82.
- Hunsberger, L.K., C.J. DeMoranville, W.R. Autio, and H.A. Sandler. 2006. Uniformity of sand deposition on cranberry farms and implications for swamp dodder control. *HortTechnology* 16:488-492.
- Marini, R.P., J.L. Anderson, W.R. Autio, B.H. Barritt, J.A. Cline, W.P. Cowgill, Jr., R.M. Crassweller, P.A. Domoto, D.C. Ferree, J. Garner, A. Gaus, G.M. Greene, C. Hampson, P. Hirst, M.M. Kushad, E. Mielke, C.A. Mullins, M. Parker, R.L. Perry, J.P. Privé, G.L. Reighard, T. Robinson, C.R. Rom, T.R. Roper, J.R. Schupp, E. Stover, and R. Unrath. 2006. Performance of Gala apple on 18 dwarf rootstocks: Ten-year summary of the 1994 NC-140 Dwarf Rootstock Trial. *Journal of the American Pomological Society* 60:69-83.
- Cooley, D.R., W.R. Autio, and J. Krupa. 2007. Calcium salts and alternatives to conventional fungicides for management of the apple summer disease complex. *Plant Disease Management Reports* (online). 2007, Report 1:PF051. DOI: 10.1094/PDMR01.
- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2007. Early performance of Fuji and McIntosh apple trees on several dwarf rootstocks in the 1999 NC-140 Rootstock Trial. *Acta Horticulturae*. 732:119-125.
- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2007. Early performance of Fuji and McIntosh apple trees on several semidwarf rootstocks in the 1999 NC-140 Rootstock Trial. *Acta Horticulturae*.732:127-133.
- Robinson, T., L. Anderson, W. Autio, B. Barritt, J. Cline, R. Crassweller, W. Cowgill, C. Embree, D. Ferree, E. Garcia, G. Greene, C. Hampson, K. Kosola, M. Parker, R. Perry, T. Roper, and M. Warmund. 2007. A multi-location comparison of Geneva 16, Geneva 41, and M.9 apple rootstocks across North America. *Acta Horticulturae* 732:59-65.
- Reighard, G., R. Andersen, J. Anderson, W. Autio, T. Beckman, T. Baker, R. Belding, G. Brown, P. Byers, W. Cowgill, D. Deyton, E. Durner, A. Erb, D. Ferree, A. Gaus, R. Godin, R. Hayden, P. Hirst, S. Kadir, M. Kaps, H. Larsen, T. Lindstrom, N. Miles, F. Morrison, S. Myers, D. Ouelette, C. Rom, W. Shane, B. Taylor, K. Taylor, C. Walsh, and M. Warmund. 2007. Growth and yield of Redhaven peach on nineteen rootstocks at twenty North American locations. *Acta Horticulturae* 732:271-278.
- Madeiras, A.M., T.H. Boyle, and W.R. Autio. 2007. Germination of *Phlox pilosa* L. seeds is improved by gibberellic acid and light but not stratification, potassium nitrate, or surface disinfestations. *HortScience* 42:1263-1267.
- Rodriguez, A., W.R. Autio, and L.A. McLandsborough. 2007. Effects of inoculation level, material hydration, and stainless steel surface roughness on the transfer of *Listeria monocytogenes* from inoculated bologna to stainless steel and high-density polyethylene. *Journal of Food Protection* 70:1423-1428.
- Rodriguez, A., W. Autio, and L. McLandsborough. 2007. Effects of biofilm dryness on the transfer of *Listeria monocytogenes* biofilms grown on stainless steel to bologna and hard salami. *Journal of Food Protection* 70:2480-2484.
- Autio, W., T. Robinson, W. Cowgill, C. Hampson, M. Kushad, J. Masabni, R. Parra Quezada, R. Perry, and C. Rom. 2008. Performance of Gala apple trees on Supporter 4, P.14, and different strains of B.9, M.9 and M.26 rootstocks: A five-year report on the 2002 NC-140 Apple Rootstock Trial. *Journal of the American Pomological Society* 62:119-128
- Vanden Heuvel, J. and W. Autio. 2008. Early-season air temperature affects phenolics production in 'Early Black' cranberry fruit." *HortScience* 43:1737-1741.
- Rodriguez, A., W. Autio, and L. McLandsborough. 2008. Effects of contact time, pressure, percent relative humidity (%RH), and material type on *Listeria* biofilm adhesive strength at a cellular level using atomic force microscopy (AFM). *Food Biophysics* 3: 305-311.
- Rodriguez, A., W. Autio, and L. McLandsborough. 2008. Effect of surface roughness and stainless steel finish on

- Listeria monocytogenes* attachment and biofilm formation. *Journal of Food Protection* 71: 170-175.
- Suhayda, B., C. DeMoranville, H. Sandler, W. Autio, and J. Vanden Heuvel. 2009. Sanding and pruning differentially impact canopy characteristics, yield, and economic returns in cranberry. *HortTechnology*. 19: 796-802.
- Kane, B., S. Brena, and W. Autio. 2009. Forces and stresses generated during rigging operations. *Arboriculture & Urban Forestry* 35: 68-74.
- Madeiras, A., T. Boyle, and W. Autio. 2009. Germination of *Rosmarinus officinalis* (L.) is influenced by cold stratification, gibberellic acid, chemical scarification, and seed lot. *Seed Technology* 31: 55-65.
- Neto, C., C. Dao, M. Salvas, W. Autio, and J. Vanden Heuvel. 2010. Variation in concentration of phenolic acid derivatives and quercetin glycosides in foliage of cranberry that may play a role in pest deterrence. *Journal of the American Society for Horticultural Science* 135:494-500.
- Autio, W., T. Robinson, B. Black, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, S. Hoying, K. lungerman, R. Johnson, G. Lang, M. Parker, G. Reighard, J. Schupp, M. Stasiak, M. Warmund, and D. Wolfe. 2011. Performance of Fuji and McIntosh apple trees after 10 years as affected by several dwarf rootstocks in the 1999 NC-140 Apple Rootstock Trial. *Journal of the American Pomological Society* 65(2):2-20.
- Autio, W., T. Robinson, B. Black, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, S. Hoying, K. lungerman, R. Johnson, G. Lang, M. Parker, R. Perry, G. Reighard, M. Stasiak, M. Warmund, and D. Wolfe. 2011. Performance of Fuji and McIntosh apple trees after 10 years as affected by several semidwarf rootstocks in the 1999 NC-140 Apple Rootstock Trial. *Journal of the American Pomological Society* 65(2):21-38.
- Autio, W., T. Robinson, W. Cowgill, C. Hampson, M. Kushad, G. Lang, J. Masabni, D. Miller, R. Parra Quezada, and C. Rom. 2011. Performance of 'Gala' apple trees on Supporter 4 and different strains of B.9, M.9, and M.26 rootstocks as part of the 2002 NC-140 Apple Rootstock Trial. *Acta Horticulturae* 903:311-318.
- Autio, W., T. Robinson, J. Cline, R. Crassweller, C. Embree, E. Hoover, G. Lang, J. Masabni, M. Parker, G. Reighard, and M. Warmund. 2011. Performance of several semidwarfing rootstocks with 'Fuji' and 'McIntosh' as scion cultivars in the 1999 NC-140 Semidwarf Apple Rootstock Trials. *Acta Horticulturae* 903:327-334.
- Autio, W., T. Robinson, J. Cline, R. Crassweller, C. Embree, E. Hoover, G. Lang, J. Masabni, M. Parker, G. Reighard, and M. Warmund. 2011. Performance of several dwarfing rootstocks with 'Fuji' and 'McIntosh' as scion cultivars in the 1999 NC-140 Dwarf Apple Rootstock Trials. *Acta Horticulturae* 903:319-326.
- Cowgill, W., W. Autio, and J. Clements. 2010. Using naphthalene acetic acid (NAA) to reduce shoot growth when a heading cut is used to lower tree height in super-spindle apple trees. *Acta Horticulturae*. In press.
- Johnson, S., R. Anderson, W. Autio, T. Beckman, B. Black, P. Byers, J. Cline, C. Chavez-Gonzalez, W. Cowgill, R. Godin, G. Greene, M. Kaps, J. Kamas, H. Larsen, T. Lindstrom, D. Miller, M. Newell, D. Ophardt, D. Ouelette, R. Parra-Quezada, R. Pokharel, G. Reighard, T. Robinson, J. Schupp, L. Stein, K. Taylor, C. Walsh, D. Ward, M. Warmund, and M. Whiting. 2011. Performance of the 2002 NC1-40 Cooperative Peach Rootstock Planting. *Journal of the American Pomological Society* 65:17-25.
- Sandler, H., C. DeMoranville, and W. Autio. 2011. Fertilizer regime and weed pressure minimally influence leaf tissue nutrient levels during cranberry vine establishment. *Communications in Soil Science and Plant Analysis* 42:1209-1222.
- Cooley, D. and W. Autio. 2011. Summer pruning of apple: Impacts on disease management. *Advances in Horticultural Science* 25:19-24.
- Marini, P., W. Autio, B. Black, J. Cline, W. Cowgill, R. Crassweller, P. Domoto, C. Hampson, R. Moran, R. Parra-Quezada, T. Robinson, M. Stasiak, D. Ward, and D. Wolfe. 2012. Summary of the NC-140 Apple Physiology Trial: The relationship between 'Golden Delicious' fruit weight and crop density at 12 locations as influenced by three dwarfing rootstocks. *Journal of the American Pomological Society* 66:78-90.
- Ghantous, K., H. Sandler, W. Autio, and P. Jeranyama. 2012. Handheld flame cultivators as a management option for woody weeds. *Weed Technology* 26:371-375.
- Ghantous, K., H. Sandler, W. Autio, P. Jeranyama. 2012. Damage and recovery of cranberry vines from exposure to handheld flame cultivators. *HortScience* 48: 870-874.
- Hoover, E., R. Marini, E. Tepe, W. Autio, A. Biggs, J. Clements, R. Crassweller, D. Foster, M. Foster, P. Hirst, D. Miller, M. Parker, G. Peck, J. Racsko, T. Robinson, M. Warmund. 2012. eApples: A case study using eXtension to increase access to research-based information. *HortTechnology* 22: 576-579.

- Marini, R., W. Autio, B. Black, J. Cline, W. Cowgill, R. Crassweller, P. Domoto, C. Hampson, R. Moran, R. Quezada, T. Robinson, M. Stasiak, D. Wolfe. 2012. The influence of crop density on annual trunk growth of Golden Delicious apple trees on three rootstocks at 11 locations. *Journal of the American Pomological Society* 66: 183-195.
- Smiley, E., B. Kane, W. Autio, L. Holmes. 2012. Sapwood cuts and their impact on tree stability. *Arboriculture and Urban Forestry* 38:287-292.
- Autio, W., Robinson T, D. Archibold, W. Cowgill, C. Hampson, R. Parra-Quezada, D. Wolfe. 2013. Gala apple trees on Supporter 4, P.14, and different strains of B.9, M.9, and M.26 rootstocks: Final 10-year report on the 2002 NC-140 Apple Rootstock Trial. *Journal of the American Pomological Society* 67:62-71.
- Marini, R., W. Autio, B. Black, J. Cline, W. Cowgill, R. Crassweller, P. Domoto, C. Hampson, R. Moran, R. Quezada, T. Robinson, D. Ward, D. Wolfe. 2013. Return bloom on Golden Delicious apple trees as affected by previous seasons crop density on three rootstocks at 11 locations. *Journal of the American Pomological Society* 67:73-79.
- Kane, B. and W. Autio. 2014. Installing cables did not affect annual radial increment in co-dominant stems of red oak. *Urban Forestry & Urban Greening* 13:443-449.
- Greene, D. W., J. Krupa and W. Autio. 2014. Factors affecting preharvest drop of apples. *Acta Horticulturae* 1042:231-235.
- Reighard, G., Bridges, Jr., W., Archbold, D., Wolfe, D., Atucha, A., Pokharel, R., Autio, W., Beckman, T., Black, B., Lindstrom, T., Coneva, E., Day, K., Johnson, R.S., Kushad, M., Parker, M., Robinson, T., Schupp, J. and Warmund, M. 2015. NC-140 Peach rootstock testing in thirteen US states. *Acta Horticulturae* 1084, 225-232.
- Sherman, A., B. Kane, W. Autio, R. Harris, and D. Ryan. 2016. Establishment period of street trees growing in Boston, MA metropolitan area. *Urban Forestry & Urban Greening*. 19:95-102.
- Marini, R., W. Autio, B. Black, J. Cline, W. Cowgill, R. Crassweller, C. Hampson, M. Kushad, R. Moran, M. Parker, R. Perry, G. Reighard, T. Robinson, and D. Wolfe. 2016. Time required for classifying rootstock vigor in multi-location rootstock trials. *J. Amer. Pomological Soc.* 70(2):82-91.
- Harper, R.W., W.R. Autio, J.T. Finn, and F.S. Rossi. 2016. Tree wardens and public grounds management in North America: Overseeding athletic fields with perennial ryegrass to promote safe playing surface. *Arboricultural J.* <http://dx.doi.org/10.1080/03071375.2016.1243343>.
- Cowgill, W.P. Jr., W.R. Autio, E.E. Hoover, R.P. Marini, and P.A. Domoto. 2017. NC-140 Multi-State Research Project: Improving economic and environmental sustainability in tree-fruit production through changes in rootstock use. *J. Amer. Pomological Soc.* 71(1):34-46.
- Autio, W., T. Robinson, B. Black, S. Blatt, D. Cochran, W. Cowgill, C. Hampson, E. Hoover, G. Lang, D. Miller, I. Minas, R Parra Quezada, and M. Stasiak. 2017. Budagovsky, Geneva, Pillnitz, and Malling apple rootstocks affect Honeycrisp performance of the first five years of the 2010 NC-140 Honeycrisp Apple Rootstock Trial. *J. Amer. Pomological Soc.* 71(3):149-166.
- Autio, W., T. Robinson, B. Black, R. Crassweller, E. Fallahi, M. Parker, R Parra Quezada, and D. Wolfe. 2017. Budagovsky, Geneva, Pillnitz, and Malling apple rootstocks affect Fuji performance of the first five years of the 2010 NC-140 Fuji Apple Rootstock Trial. *J. Amer. Pomological Soc.* 71(3):167-182.
- Wong, K.M., E.A. Decker, W.R. Autio, K. Toong, G. DiStefano, and A.J. Kinchla. 2017. Utilizing mushrooms to reduce overall sodium in taco filling Using Physical and Sensory Evaluation. *J. Food Science* DOI: 10.1111/1750-3841.13838.
- Etemadi, F., M. Hashemi, R.A. Shureshiani, and W.R. Autio. 2017. Application of data envelopment analysis to assess performance efficiency of eight faba bean varieties. *Agronomy Journal*. doi:10.2134/agronj2016.10.0617.
- Marini, R.P., R.M. Crassweller, W. Autio, R. Moran, T.L. Robinson, J. Cline, D. Wolfe, and R. Parra-Quezada. 2017. The interactive effects of early season temperatures, crop density, and rootstock average fruit weight of 'Golden Delicious' apples. *Acta Horticulturae* 1177:189-194.
- Wong, K.M., M.G. Corradini, W.R. Autio, and A.J. Kinchla. 2018. Sodium reduction strategies through use of meat extenders (white button mushrooms vs. textured soy) in beef patties. *Food Science & Nutrition* 2018;00:1-13. <https://doi.org/10.1002/fsn3.824>
- Reighard, G.L., W. Bridges, D. Archbold, A. Atucha, W. Autio, T. Beckman, B. Black, D. Chavez, E. Coneva, K. Day, M. Kushad, R.S. Johnson, T. Lindstrom, J. Lordan, I. Minas, D. Ouellette, M. Parker, R. Pokharel, T. Robinson, J.

- Schupp, M. Warmund, and D. Wolfe. 2018. Rootstock performance in the 2009 NC-140 peach trial across 11 states. *Acta Horticulturae* 1228:181-186.
- Zandvakili, O.R., A.V. Barker, M. Hashemi, F. Etemadi, and W. Autio. 2019. Comparisons of commercial organic and chemical fertilizer solutions on growth and composition of lettuce. *Journal of Plant Nutrition*. in press.
- Zandvakili, O.R., A.V. Barker, M. Hashemi, W.R. Autio, and S. Weis. 2019. Growth and nutrient and nitrate accumulation of lettuce under different regimes of nitrogen fertilization. *Journal of Plant Nutrition*, in press.
- Burcham, D.C., W.R. Autio, K. James, Y. Modarres-Sadeghi, and B. Kane. 2019. Effect of pruning type and severity on mass, stiffness, and vibration properties of Senegal mahogany (*Khaya senegalensis*) and rain tree (*Samanea saman*). *Forestry: An International Journal of Forest Research*, submitted.
- Reighard, G.L., W. Bridges, D. Archbold, A. Atucha, W. Autio, T. Beckman, B. Black, D. Chavez, E. Coneva, K. Day, M. Kushad, R.S. Johnson, T. Lindstrom, J. Lordan, I. Minas, D. Ouelette, M. Parker, R. Pokharel, T. Robinson, J. Schupp, M. Warmund, and D. Wolfe. 2019. Nine-year rootstock performance of the NC-140 Redhaven peach trial across 13 states. *J. Amer. Pomological Soc.*, submitted.

Non-refereed Publications (282)

- Buss, G. R. and W. R. Autio. 1980. Observations of polyembryony and polyploidy in ms₁ and ms₂ male sterile soybean populations. *Soybean Genet. Newsletter*.
- Bramlage, W. J. and W. R. Autio. 1982. Use of AVG to control ripening of apples. In D. G. Richardson and M. Meheriuk (eds.) *Proceedings of the Third National Controlled Atmosphere Conference on Controlled Atmospheres for Storage and Transport of Perishable Agricultural Commodities*. Timber Press. 349-358.
- Bramlage, W. J., D. W. Greene, W. R. Autio, F. W. Southwick, and W. J. Lord. 1986. Alar: What is its role in Northeastern apple production? *Fruit Notes* 51(1):2-5.
- Autio, W. R. 1986. Spencer revisited. *Fruit Notes* 51(1):11.
- Greene, D. W. and W. R. Autio. 1986. Gala: A new cultivar for New England? *Fruit Notes* 51(1):12-14.
- Autio, W. R. 1986. Is chemical peach thinning on the horizon? *Fruit Notes* 51(2):9-10.
- Autio, W. R. 1986. The 1985 Alar survey. *Fruit Notes* 51(2):20-21.
- Autio, W. R. 1986. Redcort: A superior strain of Cortland. *Fruit Notes* 51(4):1-3.
- Autio, W. R. 1987. Apple rootstock evaluation in Massachusetts: 1986. *Fruit Notes* 52(1):1-4.
- Lord, W. J., K. Kaminsky, and W. R. Autio. 1986. Mark--a promising new apple rootstock. *Proc. New England Fruit Meetings* 92:50-53.
- Autio, W. R. 1986. A panel discussion on waxing: Introduction. *Proc. New England Fruit Meetings* 92:110.
- Lord, W. J. and W. R. Autio. 1986. Rootstock performance in Massachusetts. *Annu. Rpt. Maine State Pom. Soc. for 1986*:31-36.
- Kimball, M. and W. R. Autio. 1987. The economics of orchard rejuvenation in response to the potential loss of Alar for drop control. *Proc. New England Fruit Meetings* 93:44-52.
- Autio, W. R., W. J. Lord, and W. J. Bramlage. 1987. Apple cultivars and rootstock observations in Massachusetts. *Proc. 96th Annu. Mtg., Conn. Pom. Soc.* 43-49.
- Autio, W. R. 1987. Effects of rootstock on apple ripening, size, and quality. *Compact Fruit Tree* 20:98-102.
- Kimball, M. and W. R. Autio. 1987. An economic analysis of orchard rejuvenation in response to the reduction or elimination of the use of Alar. *Fruit Notes* 52(1):22-29.
- Autio, W. R. 1987. Can rootstock affect apple ripening and quality? *Fruit Notes* 52(2):5-10.
- Greene, D. W. and W. R. Autio. 1987. Results of 1986 chemical thinning trials on McIntosh. *Fruit Notes* 52(2):17-19.
- Greene, D. W., W. R. Autio, and W. J. Bramlage. 1987. Does summer pruning of McIntosh pay? *Fruit Notes* 52(3):7-8.
- Autio, W. R. 1987. Scion cultivar affects rootstock shank rooting. *Fruit Notes* 52(3):8.
- Autio, W. R. 1987. New McIntosh strain discovered. *Fruit Notes* 52(3):12.
- Autio, W. R. 1987. Postharvest handling of blueberries. *Fruit Notes* 52(3):20-24.
- Autio, W. R., W. J. Lord, and W. J. Bramlage. 1987. Evaluation of McIntosh strains in Massachusetts. *Fruit Notes* 52(4):1-5.
- Autio, W. R., K. M. Carroll, W. Coli, K. Leahy, and D. R. Cooley. 1987. INFONET--statewide telecommunication system. *Extension Review* 58(4):30-31.

Autio, W. R. 1988. Can M.9 rootstocks be used profitably in Massachusetts apple orchards? *Fruit Notes* 53(1):4-7.

Greene, D. W. and W. R. Autio. 1988. Dormant pruning to improve packout of McIntosh. *Fruit Notes* 53(1):12-13.

Greene, D. W. and W. R. Autio. 1988. Summer pruning for early harvest of high quality McIntosh. *Fruit Notes* 53(2):1.

Lass, D. A., M. A. Kimball, W. R. Autio, D. W. Greene, and R. Clark. 1988. The economic benefits of summer pruning. *Fruit Notes* 53(3):1-2.

Autio, W. R. and F. W. Southwick. 1988. Effects of rootstock and interstock on the growth, productivity, and anchorage of a spur and standard strain of Delicious. *Fruit Notes* 53(3):3-6.

Autio, W. R., D. W. Greene, and D. R. Cooley. 1988. Increasing the growth of newly planted apple trees. *Fruit Notes* 53(4):1-3.

Autio, W. R. and D. W. Greene. 1988. Evaluation of the newest apple rootstocks. *Pomona* 21(4):11-18.

Greene, D. W. and W. R. Autio. 1989. Red Fuji is a promising new apple cultivar. *Fruit Notes* 54(1):10.

Autio, W. R. and D. W. Greene. 1989. Apple rootstocks for the 1990's. *Fruit notes* 54(1):11-15.

Autio, W. R. 1989. Life without Alar. *Fruit Notes* 54(2):1-3.

Butkewich, S. L., R. J. Prokopy, W. Pyne, W. R. Autio, and D. W. Greene. 1989. The effects of summer pruning on insect and mite populations in apple trees. *Fruit Notes* 54(2):6-7.

Greene, D. W. and W. R. Autio. 1989. A critical time for change. *Fruit Notes*. 54(3):1-5.

Autio, W. R., W. J. Bramlage, and W. J. Lord. 1989. Storage of Marshall McIntosh: Some cautions for 1989. *Fruit Notes* 54(3):6-7.

Autio, W. R. 1989. Trends in the New England apple industry. *Fruit Notes* 54(4):12-17.

Greene, D. W. and W. R. Autio. 1989. Red Fuji is a promising new apple cultivar. *Pomona*. 22:32-33.

Autio, W. R. and J. F. Costante. 1989. Evaluating maturity and storage of disease-resistant apples. *Northeast Apple LISA Newsletter* 1(1):6-8.

Greene, D. W. and W. R. Autio. 1990. Comparison of ripening and fruit quality of Gala and McIntosh apples at harvest and following air storage. *Fruit Notes* 55(2):1-4.

Greene, D. W. and W. R. Autio. 1990. Commercial potential of Red Fuji in New England. *Fruit Notes* 55(2):5-6.

Autio, W. R., D. W. Greene, and W. J. Lord. 1990. Preliminary observations of Redmax in Massachusetts. *Fruit Notes* 55(2):7-8.

Autio, W. R. 1990. Costs of establishing high density apple plantings. *Fruit Notes* 55(4):1-5.

Autio, W. R., D. W. Greene, and W. J. Lord. 1990. McIntosh strains to expand the harvest season. *Proc. New England Fruit Meetings* 96:107-114.

Greene, D. W. and W. R. Autio. 1990. How to grow, harvest, and handle Mutsu (Crispin) apples. *Proc. New England Fruit Meetings* 96:115-117.

Greene, D. W. and W. R. Autio. 1990. Fuji, a new apple cultivar for New England? *Proc. New England Fruit Meetings*. 96:118-121.

Bramlage, W. J. and W. R. Autio. 1990. Determining apple maturity. *Penn. Fruit News* 70(4):78-82.

Autio, W. R. and D. W. Greene. 1991. Factors affecting apple ripening. *Proc. 136th Annu. Meeting, New York State Hort. Soc.* 136:134-141.

Autio, W. R. and D. W. Greene. 1991. Expanding the McIntosh harvest season with a variety of strains. *Proc. 136th Annu. Meeting, New York State Hort. Soc.* 136:142-148.

Robinson, T., W. R. Autio, R. Dressel, J. Minard, D. Oakes, J. Schupp, and W. Smith. 1991. Planting systems for the 90's: A panel discussion of the pro's and con's of high-density systems. *Proc. 136th Annu. Meeting, New York State Hort. Soc.* 136:206-218.

Greene, D. W. and W. R. Autio. 1991. An update on apple cultivars. *Proc. New England Fruit Meetings* 97:72-77.

Cooley, D. R., W. R. Autio, and J. W. Gamble. 1991. Flyspeck and sooty blotch: New problems and new ideas. *Fruit Notes* 56(1):24-26.

Autio, W. R. and D. W. Greene. 1991. Summer pruning, a continuing look at the benefits. *Fruit Notes* 56(1):27-28.

Autio, W. R. and D. W. Greene. 1991. Acey Mac and Pioneer Mac, are they going to save the McIntosh industry in New England. *Fruit Notes* 56(2):6-7.

Autio, W. R. 1991. An Update on dwarfing rootstocks in the 1984 NC-140 Apple Rootstock Planting in Massachusetts. *Fruit Notes* 56(2):8-9.

Prokopy, R. J., D. R. Cooley, W. M. Coli, W. R. Autio, M. M. Christie, and K. P. Leahy. Second-level apple IPM. *Fruit Notes* 56(2):13-15.

Autio, W. R. 1991. Effects of rootstock on apple ripening. *Fruit Notes* 56(3):3-5.

Autio, W. R. 1991. Early performance of Summerland Red McIntosh on various rootstocks. *Fruit Notes* 56(3):6-8.

Autio, W. R., W. J. Lord, and P. L. M. Veneman. 1991. Soil moisture affects the performance of McIntosh apple trees on M.7A, M.26, M.9/MM.106, and M.9/MM.111 rootstocks. *Fruit Notes* 56(3):9-13.

Autio, W. R. and J. F. Costante. 1991. The Liberty apple: Ripening and storage properties. *Fruit Notes* 56(3):15-20.

Autio, W. R. 1991. Hurricane "Bob," a lesson in tree support. *Fruit Notes* 56(4):1.

Veneman, P. L. M. and W. R. Autio. 1991. Orchard soils and apple rootstocks. *Fruit Notes* 56(4):10-13.

Autio, W. R. 1991. The 1991 apple harvest season in Massachusetts. *Fruit Notes* 56(4):14-17.

Autio, W. R. 1991. Compare costs of high density systems. *American Fruit Grower* 111(12):38-41.

Autio, W. R. and D. W. Greene. 1992. Rootstock research in Massachusetts. *Pomona* 25(1):72-75.

Greene, D. W. and W. R. Autio. 1992. Notching increases branching on apple trees. *Fruit Notes* 57(1):9-15.

Cooley, D. R., W. R. Autio, and J. W. Gamble. 1992. The effects of summer pruning and a single fungicide application on flyspeck and sooty blotch. *Fruit Notes* 57(1):16-17.

Greene, D. W., W. R. Autio, J. Sincuk, J. Krupa, and W. J. Lord. 1992. Increasing fruit size of Royal Gala. *Fruit Notes* 57(2):1-4.

Greene, D. W. and W. R. Autio. 1992. Notching stimulates shoot development. *American Fruit Grower* 112(4):42-43.

Greene, D. W. and W. R. Autio. 1992. Notching increases branching on apple trees. *Compact News* 1992(5):1-3.

Cooley, D., W. R. Autio, and J. W. Gamble. 1992. A new look at flyspeck and sooty blotch. *Northeast LISA Apple Production Newsletter* 3(1):4-5,19.

Autio, W. R. and D. W. Greene. 1992. Ringing and scoring to control growth of apple trees: Results from 1991. *Fruit Notes* 57(3):1-5.

Autio, W. R., D. W. Greene, J. W. Gamble, M. M. Christie, and K. P. Leahy. 1992. Root pruning, part of the Second-level Integrated Pest Management Project. *Fruit Notes* 57(3):6-9.

Autio, W. R. and J. F. Costante. 1992. Liberty maturity and storage, 1991/92. *Northeast Sustainable Apple Production Newsletter* 3(2):12.

Autio, W. R. 1992. The future of the apple industry in southern New England. *Proc. New England Fruit Meetings* 98:98-101.

Greene, D. W. and W. R. Autio. 1993. Promising new apple cultivars for the future. *Proc. 101st Annu. Meeting, Conn. Pomological Society*.

Autio, W. R. and F. W. Southwick. 1993. Evaluation of four rootstocks and two McIntosh strains. *Fruit Notes* 58(1):7-12.

Greene, D. W. and W. R. Autio. 1993. Evaluation of red coloring strains of Gala apple. *Fruit Notes* 58(1):15-19.

Greene, D. W. and W. R. Autio. 1993. Evaluation of new Apple cultivars. *Fruit Notes* 58(2):4-14.

Autio, W. R. 1993. Costs and returns from high density apple plantings during the first three seasons. *Fruit Notes* 58(3):1-5.

Autio, W. R. 1993. Costs and returns from three peach training systems during the first three seasons. *Fruit Notes* 58(3):6-8.

Autio, W. R. 1993. Evaluation of several apple rootstocks in the 1984 NC-140 planting. *Fruit Notes* 58(4):1-3.

Autio, W. R. and D. W. Greene. 1993. Chemical growth control: Ethephon as a growth retardant. *Fruit Notes* 58(4):10-13.

Cooley, D. R., R. Elliott, J. Mason, S. Wright, and W. R. Autio. 1994. Second-level integrated pest management, 1991 to 1993: Diseases. *Fruit Notes* 59(1):13-15.

Autio, W. R. and W. J. Lord. 1994. Final report on the 1980 NC-140 Apple Rootstock Planting: Starkspur Supreme Delicious on eight rootstocks. *Fruit Notes* 59(2):1-7.

Greene, D. W. and W. R. Autio. 1994. Promising new apple cultivars for 1994. *Fruit Notes* 59(2):13-17.

Greene, D. W. and W. R. Autio. 1994. Suggestions for use of the new postbloom thinner Accel. *Fruit Notes* 59(2):18-20.

Autio, W. R. 1994. Final report on the 1984 NC-140 Cooperative Apple Rootstock Planting in Massachusetts: Starkspur Supreme Delicious on fifteen rootstocks. *Fruit Notes* 59(3):11-19.

Greene, D. W. and W. R. Autio. 1995. Chemical thinning of Gala apples. *Fruit Agribusiness News* 14(1):3.

Greene, D. W. and W. R. Autio. 1995. Pruning Gala apple trees. *Fruit Agribusiness News* 14(1):2.

Greene, D. W. and W. R. Autio. 1995. Promising new apple cultivars. *Pomona* 26(1):30-35.

- Cooley, D. R., R. Elliott, J. Mason, S. Wright, and W. R. Autio. 1995. Second-level integrated pest management 1991 to 1993: Diseases. *Pomona* 26(1):48-52.
- Autio, W. R. 1995. Final report on the 1984 NC-140 Cooperative Apple Rootstock Planting in Massachusetts: Starkspur Supreme Delicious on fifteen rootstocks. *Pomona* 26(1):53-56.
- Autio, W. R., D. W. Greene, and W. J. Lord. 1995. Performance of McIntosh apple trees as affected by rootstock. *Fruit Notes* 60(1):8-11.
- Autio, W. R. and D. W. Greene. 1995. Growing Gala apples in Massachusetts. *Fruit Notes* 60(1):12-13.
- Greene, D. W. and W. R. Autio. 1995. Evaluation of Accel as a chemical thinner and suggestions for use in 1995. *Fruit Notes* 60(2):1-5.
- Autio, W. R. and J. R. Schupp. 1995. Performance over five years of five rootstock cultivars in combination with five scion cultivars in Massachusetts and Maine. *Fruit Notes* 60(2):15-22.
- Prokopy, R. J., J. Mason, S. Wright, D. R. Cooley, W. R. Autio. 1995. Second-level IPM for pests in apple orchards: Performance according to type of cultivar. *Fruit Notes* 60(3):11-13.
- Prokopy, R. J., D. R. Cooley, and W. R. Autio. 1995. Grower-perceived value of Second-level Apple IPM. *Fruit Notes* 60(4):1-2.
- Greene, W. R. and W. R. Autio. 1995. Growing Gala apples in Massachusetts. *Compact News* 2:6-7.
- Greene, D. W. and W. R. Autio. 1995. A review of methods to control vegetative growth of apple trees. *Proc. Ohio Fruit & Veg. Congress*:77-79.
- Autio, W. R. 1995. Apple rootstocks. *Proc. Conn. Pomological Soc.* in press.
- Autio, W. R., R. A. Hayden, W. C. Micke, and G. R. Brown. 1995. The effects of rootstock on ripening, size, and shape of 'Starkspur Supreme Delicious' apples in the 1984 NC-140 Cooperative Planting. *Compact Fruit Tree* 28:52-59.
- Autio, W. R. 1995. Evaluation of dwarfing apple rootstocks. *Proc. New England Fruit Meetings* 101:102-103.
- Autio, W. R. 1995. Evaluation of peach rootstocks. *Proc. New England Fruit Meetings* 101:103-104.
- Greene, D. W. and W. R. Autio. 1995. New apple cultivars with potential for the Northeast fruit industry. *The Mountaineer Grower* 528:4-20.
- Greene, D. W. and W. R. Autio. 1995. Growing Gala apples in Massachusetts. *Proc. Ohio Fruit & Vegetable Growers Congress*:80-82.
- Greene, D. W. and W. R. Autio. 1996. Growing Gala. *Amer. Fruit Grower* 116(1):22L-22M.
- Autio, W. R. and D. W. Greene. 1996. Scoring and ringing of apple trees. *Amer. Fruit Grower* 116(1):22O-22P.
- Greene, D. W. and W. R. Autio. 1996. Controlling vegetative growth in apple trees. *Amer. Fruit Growers* 116(3):20-21.
- Autio, W. R. 1996. Pioneer Mac, the McIntosh strain for the future? *Fruit Notes* 61(1):1-2.
- Greene, D. W. and W. R. Autio. 1996. New August-ripening apple cultivars that are alternatives to Paulared. *Fruit Notes* 61(1):11-13.
- Autio, W. R. 1996. Rootstock affects ripening of McIntosh apples. *Fruit Notes* 61(2):8-9.
- Cooley, D. R., A. Tuttle, W. R. Autio, and S. Weis. 1996. Effects of calcium salts on flyspeck and sooty blotch of Golden Delicious apples. *Fruit Notes* 61(2):17-18.
- Coli, W. M., R. Szala, W. R. Autio, D. R. Cooley, K. I. Hauschild, and R. J. Prokopy. 1996. 1995 Tree-fruit Survey. *Fruit Notes* 61(3):1-3.
- Autio, W. R., W. M. Coli, and R. Szala. 1996. 1995 Tree-fruit survey: Horticulture. *Fruit Notes* 61(3):4-6.
- Coli, W. M., R. Szala, W. R. Autio, D. R. Cooley, K. I. Hauschild, and R. J. Prokopy. 1996. 1995 Tree-fruit Survey: Integrated pest management. *Fruit Notes* 61(3):13-18.
- Autio, W. R., D. W. Greene, and G. Morin. 1996. Importance of chemical thinning related to fruit size. *Proceedings of the New England Fruit Meetings*. 102:26-28.
- Autio, W. R. and D. W. Greene. 1996. HPM: Horticultural pest management. *Proceedings of the New England Fruit Meetings*. 102, 1996, 73.
- Autio, W. R. 1996. Progress report: The 1994 NC-140 Apple Rootstock Trial in Massachusetts. *Proceedings of the New England Fruit Meetings*. 102:96-97.
- Autio, W. R. 1996. Progress report: The 1994 NC-140 Peach Rootstock Trial in Massachusetts. *Proceedings of the New England Fruit Meetings*. 102:98.
- Autio, W. R. 1997. An update on the 1994 NC-140 Apple Rootstock Trial. *Fruit Notes*. 62(2):17-19.
- Autio, W. R. 1997. An update on the 1994 NC-140 Peach Rootstock Trial. *Fruit Notes*. 62(2):20-22.

- Greene, D. W. and W. R. Autio. 1994. A review of methods to control vegetative growth of apple trees. *The Mountaineer Grower* 524:24-32
- Autio, W. R. 1994. High density plantings: Overcoming some of the pitfalls and risks. Proc. New Brunswick Horticultural Congress for 1994:16.
- Autio, W. R. 1994. Rootstock affects apple ripening, quality, and storability. *Compact Fruit Tree* 27:41-47.
- Autio, W. R. 1997. An update on the 1991 McIntosh Strain/Rootstock Trial. *Fruit Notes* 62(4):14-17.
- Autio, W. R., J. L. Anderson, J. A. Barden, G. R. Brown, P. A. Domoto, D. C. Ferree, A. Gaus, R. L. Granger, R. A. Hayden, F. Morrison, C. A. Mullins, S. C. Myers, R. L. Perry, C. R. Rom, J. R. Schupp, and L. D. Tukey. 1997. Apple rootstock and scion cultivar interact to affect tree performance in the 1990 NC-140 Cultivar/Rootstock Trial. *Compact Fruit Tree*. 30:6-9.
- Autio, W. R., J. L. Anderson, J. A. Barden, G. R. Brown, P. A. Domoto, D. C. Ferree, A. Gaus, R. A. Hayden, F. Morrison, C. A. Mullins, C. R. Rom, J. R. Schupp, and L. D. Tukey. 1998. Rootstock and scion interact to affect apple tree performance. *Fruit Notes* 53(1):1-4.
- Autio, W. R., J. L. Anderson, J. A. Barden, G. R. Brown, P. A. Domoto, D. C. Ferree, A. Gaus, R. A. Hayden, F. Morrison, C. A. Mullins, C. R. Rom, J. R. Schupp, and L. D. Tukey. 1998. Rootstock and scion interact to affect apple tree performance. *Compact Fruit Tree* 31:106-107.
- Autio, W. R. 1998. An update on the 1991 McIntosh Strain/Rootstock Trial. *Compact Fruit Tree* 31:115-116.
- Autio, W. R. 1999. Budagovsky 9: A summary of fifteen years of trial. *Fruit Notes*. 64(1):16-17.
- Autio, W. R., D. W. Greene, and D. R. Cooley. 1999. Modern Johnny Appleseeds. *Accents*. 3(1):1-2.
- Tuttle, A.D., D. Smith, J. Hall, M. Frank, D. Cooley, S. Wright, J. Black, S. Lavalley, and W. Autio. 1999. Effects of planting density and IPM level on apple fruit quality. *Fruit Notes* 64(2):6-7.
- Autio, W. R. 1999. Ottawa 3: A summary of twenty years of trial. *Fruit Notes* 64(2): 12-13.
- Tuttle, A.D., J. Smith, C. Bergweiler, D. McPadden, S. Christle, D. Cooley, S. Wright, J. Black, and W. Autio. 1999. Effects of planting density and IPM level on apple fruit quality and crop density: 1999 results. *Fruit Notes* 64(4):1-3.
- Greene, D.W., W.R. Autio, and J. Krupa. 1999. Storage and shelf life of several promising late-summer-maturing apple varieties. *Fruit Notes* 64(4):4-7.
- Autio, W.R., J. Krupa, and J. Clements. 2000. Performance of trees in the Massachusetts planting of the 1994 NC-140 Apple Rootstock Trial over seven growing seasons. *Fruit Notes* 65:1-3.
- Autio, W.R., J. Krupa, and J. Clements. 2000. Performance of trees in the Massachusetts planting of the 1994 NC-140 Peach Rootstock Trial over seven growing seasons. *Fruit Notes* 65:4-5.
- Tuttle, A., C. Bergweiler, J. Hall, L. Reisner, S. Christie, W.R. Autio, and D. Cooley. 2002. Development of a model for predicting flyspeck risk in blocks of apple trees. *Fruit Notes* 67(1):5-8.
- Leahy, K., D. Greene, and W.R. Autio. 2002. Effects of gibberellin synthesis inhibition on feeding injury by potato leafhopper on apple. *Fruit Notes* 67(1):9-12.
- Autio, W.R. and J. Krupa. 2002. Performance of the V Series apple rootstocks during six growing seasons. *Fruit Notes* 67(3):18-19.
- Robinson, T., L. Anderson, W. Autio, A. Azarenko, B. Barritt, G. Brown, J. Cline, R. Crassweller, P. Domoto, C. Embree, A. Fennell, D. Ferree, E. Garcia, A. Gaus, G. Greene, C. Hampson, P. Hirst, E. Hoover, S. Johnson, M. Kushad, R. Marini, R. Moran, C. Mullins, M. Parker, R. Perry, J.P. Privé, G. Reighard, C. Rom, T. Roper, J. Schupp, and M. Warmund. 2002. Performance of Cornell-Geneva rootstocks in the North American NC-140 rootstock trials. *Compact Fruit Tree* 35:99-102.
- Autio, W.R., J. Krupa, and J. Clements. 2003. A comparison of six strains of M.9 over 10 years. *Fruit Notes of New England* 68(2):22-25.
- Autio, W.R., J. Krupa, and J. Clements. 2003. An early look at a few of the Geneva Series apple rootstocks in Massachusetts. *Fruit Notes of New England* 68(2):28-30.
- Autio, W.R. 2003. How does B.9 stack up compared to M.9. *Fruit Notes of New England* 68(2):31.
- Autio, W.R. 2004. *Fruit Notes* issue in honor of Ronald J. Prokopy. *Fruit Notes of New England* 69(2):1-2.
- Autio, W.R., J. Krupa, and J.M. Clements 2005. 1996 McIntosh Rootstock Trial: A look at the Vineland rootstocks. *Fruit Notes* 70(1):6-7.
- Autio, W.R., J.M. Clements, and J. Krupa 2005. 1998 NC-140 Apple Rootstock Trial: G.16 vs. M.9. *Fruit Notes* 70(1):8-9.
- Autio, W.R., J.M. Clements, and J. Krupa. 2005. 1999 NC-140 Dwarf Apple Rootstock Trail: New CG rootstocks,

- G.16, and Supporter 1, 2, and 3 versus M.9 (T337) and M.26 EMLA. *Fruit Notes* 70(1):10-11.
- Autio, W.R., J.M. Clements, and J. Krupa. 2005. 1999 NC-140 Semidwarf Apple Rootstock Trial: CG.4814, CG.7707, G.30, and Supporter 4 versus M.26 EMLA and M.7 EMLA. *Fruit Notes* 70(1):12-13.
- Autio, W.R. and J. Krupa. 2005. 2002 NC-140 Apple Rootstock Trial: B.9, M.9, and M.26 strains and new Polish and PiAu rootstocks. *Fruit Notes* 70(1):14.
- Autio, W.R. and J. Krupa. 2005. 2002 NC-140 Peach Rootstock Trial: Several new dwarfing rootstocks compared to Lovell. *Fruit Notes* 70(1):15.
- Clements, J.M. and W.R. Autio. 2005. 2002 Massachusetts-New Jersey Cameo Rootstock Trial: G.16 versus M.9 and B.9. *Fruit Notes* 70(1):16.
- Autio, W.R. and James Krupa. 2005. 2003 NC-140 Apple Rootstock Physiology Trial: Do different rootstocks respond differently to crop load? *Fruit Notes* 70(1):17.
- Autio, W.R., J. Krupa, and D.W. Greene. 2005. Late-season chemical thinning of apples. *Fruit Notes* 70(2):1-5.
- Autio, W.R. J. Krupa, J.M. Clements, and D.W. Greene. 2005. Controlling growth in the top of dwarf trees. *Fruit Notes* 70, 3, 2005:13-15.
- Autio, W.R. and J. Krupa. 2005. Can ethephon reduce vegetative growth of nonfruiting peach trees? *Fruit Notes* 70, 3, 2005:16.
- Autio, W.R., J. Krupa, and D.W. Greene. 2005. Last-chance chemical thinning of apples. *Annual Report of the UMass Cold Spring Orchard Research & Education Center*. 2005:18-22.
- Autio, W.R., J. Krupa, and J.M. Clements. 2005. Do McIntosh, Pioneer Mac, Cortland, and Macoun respond differently to rootstocks? – The 1995 Massachusetts-Maine-Nova Scotia Scion/Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:38-42.
- Autio, W.R., J. Krupa, and J.M. Clements. 2005. A comparison of a few of the Vineland series rootstocks. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:43-44.
- Autio, W.R., J.M. Clements, and J. Krupa. 2005. How does G.16 differ from M.9? – The 1998 NC-140 Apple Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:45-46.
- Autio, W.R., J.M. Clements, and J. Krupa. 2005. New dwarf apple rootstocks from the Geneva (NY) and Pillnitz (Germany) breeding programs – The 1999 NC-140 Dwarf Apple Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:47-48.
- Autio, W.R., J.M. Clements, and J. Krupa. 2005. New semidwarf apple rootstocks from the Geneva (NY) and Pillnitz (Germany) breeding programs – The 1999 NC-140 Semidwarf Apple Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:49-50.
- Autio, W.R. and J. Krupa. 2005. Strains of B.9, M.9, and M.26 compared to new Polish and Pillnitz rootstocks – The 2002 NC-140 Apple Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:51-52.
- Clements, J.M. and W.R. Autio. 2005. G.16 produces trees larger than those on M.9 or B.9 – The 2002 Massachusetts-New Jersey Cameo Rootstock Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:53.
- Autio, W.R. and J. Krupa. 2005. Do different rootstocks respond differently to variation in crop load? – The 2003 NC-140 Apple Rootstock Physiology Trial. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:54.
- Autio, W.R., J. Krupa, J.M. Clements, and D.W. Greene. 2005. Controlling growth in the top of dwarf trees. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:57-59.
- Autio, W.R. and J. Krupa. Effects of ethephon on vegetative growth of nectarine trees. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:60.
- Cooley, D., W. Coli, S. Schloemann, J. Vanden Heuvel, D. Greene, W. Autio, J. Clements, A. Averill, C. Hollingsworth, F. Caruso, H. Sandler, and J. Weiss. 2005. New wine grape project at the UMass Cold Spring Orchard Research & Education Center. *Annual Report of the UMass Cold Spring Orchard Research & Education Center* 2005:78.
- Autio, W.R. and R.P. Marini. 2005. NC-140 Trial coordination, data analysis, and results summary. *Compact Fruit Tree* 38(3):26-27.
- Autio, W.R., J. Krupa, and J.M. Clements. 2005. 1995 Massachusetts-Maine-Nova Scotia Scion/Rootstock Trial: Several rootstocks evaluated with McIntosh, Cortland, and Macoun as scions. *Fruit Notes* 70(1):1-5.

- Cooley, D., W. Coli, S. Schloemann, J. Vanden Heuvel, D. Greene, W. Autio, J. Clements, A. Averill, C. Hollingsworth, F. Caruso, H. Sandler, and J. Weiss. 2005. Development of a research and education program for small-scale, sustainable viticulture and enology in Massachusetts. *Fruit Notes* 70(4):13-15.
- Robinson, T., L. Anderson, W. Autio, B. Barritt, J. Cline, W. Cowgill, R. Crassweller, C. Embree, D. Ferree, E. Garcia, G. Greene, C. Hampson, K. Kosola, M. Parker, R. Perry, T. Roper, and M. Warmund. 2006. A multi-location comparison of Geneva 16, Geneva 41 and M.9 apple rootstocks in North-America. *Compact Fruit Tree* 39(2):22-23.
- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, M.E. Garcia, G.M. Greene, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2006. Comparison of several dwarf rootstocks with Fuji and McIntosh as scion cultivars: 1999 NC-140 Dwarf Apple Rootstock Trials. *Compact Fruit Tree* 39(2):28-32.
- Autio, W.R., T.L. Robinson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, M.E. Garcia, E.E. Hoover, R.S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, S.D. Seeley, and M. Warmund. 2006. Comparison of several semidwarf rootstocks with Fuji and McIntosh as scion cultivars: 1999 NC-140 Semidwarf Apple Rootstock Trials. *Compact Fruit Tree* 39(2):24-27.
- Autio, W.R., J. Krupa, and J.M. Clements. 2006. A comparison of Vineland Apple Rootstocks and M.26 EMLA in the 1996 McIntosh Rootstock Trials. *Fruit Notes* 71(1):5-6.
- Autio, W.R., J.M. Clements, and J. Krupa. 2006. G.16 versus M.9 in the 1998 NC-140 Apple Rootstock Trial. *Fruit Notes* 71(1):7-8.
- Autio, W.R., J.M. Clements, and J. Krupa. 2006. New CG rootstocks, G.16, and Supporter 1, 2, and 3 versus M.9 and M.26 EMLA in the 1999 NC-140 Dwarf Apple Rootstock Trial. *Fruit Notes* 71(1):9-10.
- Autio, W.R., J.M. Clements, and J. Krupa. 2006. CG.4814, CG.7707, G.30, and Supporter 4 versus M.26 EMLA and M.7 EMLA in the 1999 NC-140 Semidwarf Apple Rootstock Trial. *Fruit Notes* 71(1):12-13.
- Clements, J.M and W.R. Autio. 2006. G.16 versus M.9 and B.9 in the 2002 Massachusetts-New Jersey Cameo Rootstock Trial. *Fruit Notes* 71(1):11.
- Autio, W.R. and J. Krupa. 2006. B.9, M.9, and M.26 strains and new Polish and PiAu rootstocks in the 2002 NC-140 Apple Rootstock Trial. *Fruit Notes* 71(1):14-15.
- Autio, W.R. and J. Krupa. 2006. Several new dwarfing rootstocks compared to Lovell in the 2002 NC-140 Peach Rootstock Trial. *Fruit Notes* 71(1):16-17.
- Autio, W. and W. Cowgill. 2006. Consider controlling the tops of your overly vigorous dwarf apple trees. *Plant & Pest Advisory* 11(6):5.
- Cowgill, W. and W. Autio. 2006. More on weather and apple thinning in 2006. *Plant & Pest Advisory*. 11(7):1-2.
- Autio, W. and W. Cowgill. 2006. Whoaa!! Out of control? Consider controlling tops-only of vigorous dwarf apples. *Healthy Fruit* 14(6):1-2.
- Autio, W.R., J. Krupa, and J.M. Clements. 2006. Naphthalene acetic acid can differentially reduce growth in the tops of dwarf apple trees, Results from 2005. *Fruit Notes* 72(2): 9-10.
- Autio, W.R. and J. Krupa. 2006. Chemical thinning of apples using ethephon. *Fruit Notes* 72(2):11-14.
- Krupa, J. and W.R. Autio. 2006. Do surfactants affect response to chemical thinners. *Fruit Notes* 72(2):15.
- Cooley, D.R., W.R. Autio, A. Tuttle, and J. Krupa. 2006. Alternative fungicides for management of sooty blotch and flyspeck. *Fruit Notes* 72(3):1-3.
- Autio, W.R. and J. Krupa. 2006. Chemical thinning of apples using ethephon: Another unsuccessful year. *Fruit Notes* 72(3):4-6.
- Autio, W.R., J. Krupa, J.M. Clements, W.P. Cowgill, and M. Maletta. 2006. Naphthalene acetic acid and Apogee control growth in the tops of dwarf apple trees. *Fruit Notes* 72(3):7-10.
- Mendonca, R., F. Mangan, M. Moreira, A. Criswell, S. Nunes, W. Autio, F. Finger, G. Almeida, P. Allen, and T. Brashear. 2007. Evaluation of hard squash varieties for production in Massachusetts. *Vegetable Notes* 18(4):1-4.
- Clements, J., W. Autio, W. Cowgill, and D. Kollas. 2007. To prune or not to prune – what’s a grower to do? *Healthy Fruit* 15(1):1-3.
- Cowgill, W., J. Clements, and W. Autio. 2007. To prune or not to prune – abnormal warm weather. *Plant & Pest Advisory* 11(30):2.
- Cowgill, W. and W. Autio. 2007. Enhancing return bloom on apple with plant growth regulators. *Plant & Pest Advisory* 12(10):1-2.

- Autio, W., J. Krupa, and J. Clements. 2007. Crop load and rootstock interact to affect Golden Delicious tree growth, fruit size, and ripening: 2003 NC-140 Apple Rootstock Physiology Trial. *Fruit Notes* 72(1): 14-17.
- Cooley, D., W. Autio, J. Clements, W. Cowgill, and R. Spitko. 2007. An annual fire blight management program for apples. *Fruit Notes* 72(2): 1-9.
- Autio, W., J. Krupa, and J. Clements. 2007. Performance of McIntosh apple trees on several Geneva and Pillnitz dwarfing rootstocks: Nine-year summary of the 1999 NC-140 Dwarf Apple Rootstock Trial. *Fruit Notes* 72(2): 10-13.
- Autio, W., J. Krupa, and J. Clements. 2007. Performance of McIntosh apple trees on one Pillnitz and three Geneva semidwarfing rootstocks: Nine-year summary of the 1999 NC-140 Semidwarf Apple Rootstock Trial. *Fruit Notes* 72(2): 14-15.
- Autio, W., J. Krupa, and J. Clements. 2007. Comparison of strains of B.9, M.9, and M.26 to new Polish and Pillnitz dwarfing apple rootstocks: Six-year summary of the Massachusetts planting of the 2002 NC-140 Apple Rootstock Trial. *Fruit Notes* 72(2): 16-17.
- Autio, W., and J. Krupa. 2007. Ethephon as a chemical thinner of McIntosh and Macoun Apples in 2007. *Fruit Notes* 72(3): 1-2.
- Autio, W., and J. Krupa. 2007. Final report from the 2002 NC-140 Peach Rootstock Trial. *Fruit Notes* 72(3):8-10.
- Autio, W., W. Cowgill, J. Clements, J. Krupa, M. Maletta, and R. Magron. 2007. Can you reduce tree height of super spindle apple trees with pruning? Naphthalene acetic acid may help. *Fruit Notes*. 72(4): 1-4.
- Cowgill, W. and W. Autio. 2009. Enhancing return bloom on apples with plant growth regulators. *Plant & Pest Advisory* 14(10): 1-2.
- Autio, W., J. Krupa, and W. Cowgill. 2008. Can carbaryl enhance ethephon's value as a late-season thinner. *Fruit Notes* 73:3-4.
- Autio, W., J. Krupa, and W. Cowgill. 2008. Enhancing return bloom of Honeycrisp apples with ethephon. *Fruit Notes* 73:5-6.
- Autio, W. and J. Krupa. 2008. Are the effects of crop load altered by rootstock? An update on the 2003 NC-140 Apple Physiology Trial. *Fruit Notes* 73: 7-9.
- Autio, W., J. Krupa, and J. Clements. 2008. Comparing McIntosh apple trees on several Geneva and Supporter rootstocks: An update on the 1999 NC-140 Dwarf Apple Rootstock Trial. *Fruit Notes* 73:10-11.
- Autio, W., J. Krupa, and J. Clements. 2008. Comparing McIntosh apple trees on Geneva and Supporter rootstocks: An update on the 1999 NC-140 Semidwarf Apple Rootstock Trial. *Fruit Notes* 73: 12-13.
- Autio, W., J. Krupa, and J. Clements. 2008. Comparing Gala apple trees on different strains of B.9, M.9, M.26, and other rootstocks: An update on the 2002 NC-140 Apple Rootstock Trial. *Fruit Notes* 73: 14-16.
- Autio, W., T. Robinson, B. Black, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, K. Kosola, J. Masabni, M. Parker, R. Perry, G. Reighard, J. Schupp, and M. Warmund. 2008. 1999 NC-140 Fuji and McIntosh Dwarf Apple Rootstock Trials: An update after eight growing seasons. *Compact Fruit Tree* 41(1): 23-25.
- Autio, W., T. Robinson, B. Black, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, K. Kosola, J. Masabni, M. Parker, R. Perry, G. Reighard, J. Schupp, and M. Warmund. 2008. 1999 NC-140 Fuji and McIntosh Semidwarf Apple Rootstock Trials: An update after eight growing seasons. *Compact Fruit Tree* 41(1): 26-28.
- Cowgill, W. and W. Autio. 2008. Enhancing return bloom on apple with plant growth regulators. *Plant & Pest Advisory* 13(12):1-2
- Cowgill, W. and W. Autio. 2008. Apple late window thinning options." *Plant & Pest Advisory* 13(6): 3.
- Autio, W. 2009. An introduction to BMPs for Massachusetts orchards. In: Autio, W., J. Clements, G. Cook, A. Dowse, D. Gillespie, K. Nicewicz, M. Tougas, and S. Ware (eds.) *Orchard BMPs, A Handbook for Massachusetts Orchards Best Management Practices* Section : 1.
- Autio, W. 2009. Massachusetts tree-fruit production best management practices checklist. In: Autio, W., J. Clements, G. Cook, A. Dowse, D. Gillespie, K. Nicewicz, M. Tougas, and S. Ware (eds.) *Orchard BMPs, A Handbook for Massachusetts Orchards Best Management Practices* Section 2:1-19.
- Autio, W., J. Clements, G. Cook, A. Dowse, D. Gillespie, K. Nicewicz, M. Tougas, and S. Ware (eds.). 2009. *Orchard BMPs, A Handbook for Massachusetts Orchards Best Management Practices*. Massachusetts Department of Agricultural Resources. 446 pp.
- Autio, W., J. Krupa, and J. Clements. 2009. An update on the 2003 NC-140 Apple Rootstock Physiology Trial, 2009 results. *Fruit Notes* 74: 1-7.

Autio, W., J. Krupa, and J. Clements. 2009. An update of the 2002 NC-140 Apple Rootstock Trial, 2009 results. *Fruit Notes* 73: 8-10.

Krupa, J. and W. Autio. 2009. Blossom thinning of peaches in 2009. *Fruit Notes* 73:16-17.

Autio, W., J. Krupa, J. Clements, W. Cowgill, and R. Magron. 2010. New NC-140 apple rootstock trials in Massachusetts and New Jersey in the spring of 2010. *Fruit Notes* 75(3): 1-3.

Autio, W., J. Krupa, J. Clements, W. Cowgill, and R. Magron. 2010. New NC-140 apple rootstock trials in Massachusetts and New Jersey in the spring of 2010. *Horticultural News* 90(3): 1-3.

Autio, W., J. Clements, and W. Cowgill. 2010. A look at the fruit thinning weather in 2010. *Fruit Notes* 75(3): 4-6.

Autio, W., J. Clements, and W. Cowgill. 2010. A look at the fruit thinning weather in 2010. *Horticultural News* 90(3): 4-6.

Clements, J., W. Autio, and W. Cowgill. 2010. Using heading vs. notching with or without BA application to induce branching in non-feathered, first-leaf apple trees. *Fruit Notes* 75(3): 7-11.

Clements, J., W. Autio, and W. Cowgill. 2010. Using heading vs. notching with or without BA application to induce branching in non-feathered, first-leaf apple trees. *Horticultural News* 90(3):7-11.

Autio, W., J. Clements, and J. Krupa. 2010. 2009 NC-140 peach rootstock trial in Massachusetts. *Fruit Notes* 75(3): 12-14.

Autio, W., J. Clements, and J. Krupa. 2010. 2009 NC-140 peach rootstock trial in Massachusetts. *Horticultural News* 90(3):12-14.

Cowgill, W. and W. Autio. 2010. Apple crop load and thinning update. *Plant & Pest Advisory* 15(7): 4.

Autio, W., T. Robinson, B. Black, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, S. Hoying, K. Iungerman, R. Johnson, G. Lang, M. Parker, R. Perry, G. Reighard, J. Schupp, M. Stasiak, M. Warmund, and D. Wolfe. 2011. Performance of Fuji and McIntosh apple trees after 10 years as affected by several dwarf rootstocks – Final report of the 1999 NC-140 Dwarf Apple Rootstock Trial. *Compact Fruit Tree* 44(2): 18-21.

Autio, W., J. Krupa, W. Cowgill, D. Ward, R. Magron, and S. Sollner-Figler. 2011. Effects of Systemm-CAL and ProGibb on Jersey peaches in Massachusetts and New Jersey. *Fruit Notes* 76(2): 1-4. *Horticultural News* 91(2): 1-4.

Clements, J. and W. Autio. 2011. Looking into the crystal ball – apple fruit thinning without carbaryl. *Fruit Notes* 76(2): 5-8. *Horticultural News* 91(2): 5-8.

Autio, W., J. Krupa, J. Clements, W. Cowgill, and R. Magron. 2011. Comparing strains of B.9, M.26, and M.9, P.14, and three Pillnitz rootstocks: 2002 NC-140 Apple Rootstock Trial in Massachusetts and New Jersey. *Fruit Notes* 76(3): 6-10. *Horticultural News* 91(3): 6-10.

Autio, W. 2011. Massachusetts Pick-Your-Own Apple Survey. *Fruit Notes* 76(4): 8-13. *Horticultural News* 91(4): 8-13.

Autio, W. 2011. Initial results from new pick-your-own survey. *McIntosh News* 15(3): 6.

Cowgill, W. and W. Autio. 2011. Apple thinning update – as we see it. *Plant & Pest Advisory* 16(6): 4.

Cowgill, W., D. Greene, and W. Autio. 2011. Thinning apples during a difficult period. *Plant & Pest Advisory* 16(7): 3,7.

Cowgill, W. and W. Autio. 2011. Enhancing return bloom on apple with plant growth regulators. *Plant & Pest Advisory* 16(11): 6.

Clements, J., W. Autio, J. Krupa, W. Cowgill, R. Magron, and S. Sollner-Figler. 2012. 2002 Massachusetts/New Jersey ‘Cameo’ Dwarf Rootstock Trial. *Fruit Notes* 77(1):4-6. *Horticultural News* 92(1):4-6.

Autio, W., J. Clements, and J. Krupa. 2012. Results from the first year of fruiting in the 2009 NC-140 Peach Rootstock Trial in Massachusetts. *Fruit Notes* 77(1):9-10. *Horticultural News* 92(1):9-10.

Cowgill, W., S. Sollner-Figler, R. Magron, J. Clements, and W. Autio. 2012. Asian Pear Cultivar Trial in New Jersey and Massachusetts. *Fruit Notes* 77(1):12-13. *Horticultural News* 92(1):12-13.

Hoover, E., R. Marini, E. Tepe, W. Autio, A. Biggs, J. Clements, R. Crassweller, D. Foster, M. Foster, D. Miller, M. Parker, J. Racsco, T. Robinson, and M. Warmund. 2011. Apple rootstocks and cultivars: A case study using eXtension to increase access to research-based information. *Compact Fruit Tree* 44(3):9-12.

Autio, W. 2012. NC-140 Trial Coordination. *Compact Fruit Tree* 44(2):9-10.

Clements, J., W. Autio, J. Krupa, W. Cowgill, R. Magron, and S. Sollner-Figler. 2012. 2002 Massachusetts/New Jersey ‘Cameo’ Dwarf Rootstock Trial. *Fruit Notes* 77(1):4-6. *Horticultural News* 92(1):4-6.

Autio, W., J. Clements, and J. Krupa. 2012. Results from the first year of fruiting in the 2009 NC-140 Peach

- Rootstock Trial in Massachusetts. *Fruit Notes* 77(1):9-10. *Horticultural News* 92(1):9-10.
- Cowgill, W., S. Sollner-Figler, R. Magron, J. Clements, and W. Autio. 2012. Asian pear cultivar trial in New Jersey and Massachusetts." *Fruit Notes* 77(1):12-13. *Horticultural News* 92(1):12-13.
- Autio, W., J. Krupa, J. Clements, W. Cowgill, and R. Magron. 2012. Final report of the 2002 NC-140 Apple Rootstock Trial in Massachusetts and New Jersey. *Fruit Notes* 77(2): 7-10. *Horticultural News* 92(2):7-10.
- Cowgill, W. D. Ward, R. Magron, S. Sollner-Figler, W. Autio, and J. Krupa. 2012. Effects of System-CAL on Jersey peaches in Massachusetts and New Jersey. *Fruit Notes* 77(2):13-14. *Horticultural News* 92(2):13-14.
- Cowgill, W. and W. Autio. 2012. Enhancing return bloom on apple with plant growth regulators. *Plant & Pest Advisory* 17(9):4.
- Cowgill, W., D. Polk, R. Magron, A. Antanssov, W. Autio. 2012. Surround for control of brown marmorated stink bug on apple in New Jersey. *Fruit Notes* 77(4):12-14. *Horticultural News* 92(4):12-14.
- Autio, W., J. Krupa, J. Clements. 2013. Pesticide reduction with containment spraying of high-density, dwarf apple orchards. *Fruit Notes* 78(1):10-13. *Horticultural News* 93(1):10-13.
- Autio, W., J. Krupa, J. Clements, W. Cowgill, R. Magron, S. Sollner-Figler. 2013. Third-leaf results from the 2010 NC-140 Apple Rootstock Trial in Massachusetts and New Jersey. *Fruit Notes* 78(3):7-8. *Horticultural News* 93(3):7-8.
- Autio, W., J. Krupa, W. Cowgill, D. Ward, R. Magron, S. Sollner-Figler. 2013. Thinning peaches with gibberellic acid. *Fruit Notes* 77(4):1-4. *Horticultural News* 93(4):1-4
- Autio, W., T. Robinson, D. Archibold, W. Cowgill, C. Hampson, R. Parra-Quezada, D. Wolfe. 2013. 2002 NC-140 Apple Rootstock Trial: Gala apple trees on Supporter 4, P.14, and different strains of B.9, M.9, M.26 rootstocks, final progress report. *Compact Fruit Tree* 46(1):23-28.
- Cowgill, W., A. Wyenandt, K. Holmstrom, S. Sollner-Figler, R. Magron, N. Muehlbauer, and W. Autio. 2014. Powdery mildew control and resistance management in fresh-market pumpkins in New Jersey. *Fruit Notes* 79(1):12-17. *Horticultural News* 94(1):12-17.
- Autio, W., J. Krupa, W. Cowgill, R. Magron, and S. Sollner-Figler. 2014. An update on thinning peaches with gibberellic acid. *Fruit Notes* 79(2):1-2. *Horticultural News* 94(2):1-2.
- Cowgill, W.P., M. Beese, R. Magron, W.R. Autio, J.M. Clements. 2014. Studies and recommendations for branching young apples trees. *Fruit Notes* 79(3):1-8. *Horticultural News* 94(3):1-8.
- Autio, W.R. 2014. Life without Alar. *Fruit Notes* 79(3):18-20. *Horticultural News* 94(3):18-20.
- Alvarado, M.L., W.R. Autio, R.T. Rogers, and F.X. Mangan. 2014. Preferences for fresh apples in El Salvador and Central America. *Fruit Notes* 79(4):11-12. *Horticultural News* 94(4):11-12.
- Alvarado, M.L., W.R. Autio, R.T. Rogers, and F.X. Mangan. 2014. Evaluating the acceptance of McIntosh apples in El Salvador. *Fruit Notes* 79(4):14-15. *Horticultural News* 94(4):14-15.
- Alvarado, M.L., W.R. Autio, R.T. Rogers, and F.X. Mangan. 2014. Exporting McIntosh apples from Massachusetts to Central America. *Fruit Notes* 79(4):17-18. *Horticultural News* 94(4):17-18.
- Alvarado, M.L., W.R. Autio, R.T. Rogers, and F.X. Mangan. 2014. Best handling practices to export McIntosh apples from Massachusetts to Central America. *Fruit Notes* 79(4):20-22. *Horticultural News* 94(4):20-22.
- Autio, W., J. Cline, T. Einhorn, G. Lang, R. Marini, G. Reighard, and T. Robinson. 2015. 2014 Progress report – Brief summaries of the NC-140 rootstock trials. *Compact Fruit Tree* 48(2):6-8.
- Clements, J. and W. Autio. 2015. Vineland and Geneva rootstocks in the 2014 NC-140 Apple Trial at UMass Cold Spring Orchard. *Fruit Notes* 80(1):1-3. *Horticultural News* 95(1):1-3.
- Autio, W., J. Clements, and J. Krupa. 2015. An evaluation of Cornell-Geneva and Budagovsky apple rootstocks with Honeycrisp, the 2010 NC-140 Apple Rootstock Trial after five years. *Fruit Notes* 80(2):6-11. *Horticultural News* 95(2):6-11.
- Cooley, D., W. Autio, J. Clements, and W. Cowgill. 2015. An annual fire blight management program for apples: An update. *Fruit Notes* 80(2):18-26. *Horticultural News* 95(2):18-26.
- Cowgill, W., R. Magron, J. Clements, and W. Autio. 2015. Two new NC-140 apple trials: Vineland and Geneva rootstocks with Honeycrisp and Fuji at Rutgers Snyder Farm. *Fruit Notes* 80(3): 6-8. *Horticultural News* 95(3):6-8.
- Cowgill, W., R. Magron, J. Peterson, M. Beese, W. Autio, J. Clements, and T. Robinson. 2015. Improving branching of apple trees from nursery to orchard. *Proc. New England Vegetable & Fruit Conf.* 2015: 15-18.
- Cowgill, W. and W. Autio. 2015. How to use plant growth regulators ProGibb and Retain to reduce peach flower bud density and enhance fruit firmness. *Proc. New England Vegetable & Fruit Conf.* 2015: 104-106.

- Autio, W.R., J.S. Krupa, J.M. Clements, and W.P. Cowgill 2016. Evaluation of peach rootstocks: 2009 NC-140 Peach Rootstock Trial through seven growing seasons. *Fruit Notes* 81(3):1-3. *Horticultural News* 96(3):1-3.
- Autio, W.R. 2016. Win Cowgill retires after thirty-eight years at Rutgers University. *Fruit Notes* 81(3):19-20. *Horticultural News* 96(3):19-20.
- Cowgill, W., R. Magron, and W. Autio. 2016. Raynox Plus, for the control of sunburn on apples. *Fruit Notes* 81(4):1-5. *Horticultural News* 96(4):1-5.
- Cowgill, W., J. Clements, and W. Autio. 2017. Training and pruning apples, the basics. *Fruit Notes* 82(1):8-14. *Horticultural News* 97(1):8-14.
- Autio, W., J. Krupa, and J. Clements. 2017. Performance of Honeycrisp apple trees on several Budagovsky, Cornell-Geneva, and Pillnitz rootstocks, An update on the Massachusetts planting of the 2010 NC-140 Apple Rootstock Trial. *Fruit Notes* 82(2):1-4. *Horticultural News* 97(2):1-4.
- Autio, W., J. Krupa, and J. Clements. 2017. Rootstock influence on Redhaven peach performance, An update on the Massachusetts planting of the 2009 NC-140 Peach Rootstock Trial. *Fruit Notes* 82(2):6-8. *Horticultural News* 97(2):6-8.
- Cowgill, W., J. Clements, and W. Autio. 2017. Branching young apple trees with plant growth regulators. *Fruit Notes* 82(3):6-10. *Horticultural News* 97(3):6-10.
- Autio, W., T. Robinson, B. Black, R. Crassweller, E. Fallahi, M. Parker, R. Parra Quezada, and D. Wolfe. 2017. 2016 Progress Report -- Budagovsky, Geneva, Pillnitz, and Malling apple rootstocks affect Fuji performance over the first six years of the 2010 NC-140 Fuji Apple Rootstock Trial. *Compact Fruit Tree*. 50(1):20-23.
- Autio, W., T. Robinson, S. Blatt, D. Cochran, W. Cowgill, C. Hampson, E. Hoover, G. Lang, R. Parra Quezada, and M. Stasiak. 2017. Budagovsky, Geneva, Pillnitz, and Malling apple rootstocks affect Honeycrisp performance over the first six years of the 2010 NC-140 Honeycrisp Apple Rootstock Trial. *Compact Fruit Tree*. 50(2):23-27.
- Cowgill, W., M. Muehlbauer, W. Autio, and J. Clements. 2017. Comparison of the effects of ten Geneva rootstocks and M.9 on Modi apple trees in New Jersey. *Fruit Notes* 82(4):1-3; *Horticultural News* 97(4):1-3.
- Clements, J., W.R. Autio, M. Muehlbauer, and W. Cowgill. 2018. Tree size and fruit yield in 2017 of Honeycrisp and Fuji apple trees in the 2014 NC-140 Rootstock Trials in Massachusetts and New Jersey. *Fruit Notes* 83(1):20-25; *Horticultural News* 98(1): 20-25.

Extension Publications (98)

- Autio, W. R. 1986. *The Use of Ethephon to Advance Maturity and Coloring of McIntosh Apples*. Department of Plant & Soil Sciences, University of Massachusetts.
- Autio, W. R. 1986. *Postharvest Handling of Blueberries*. Department of Plant & Soil Sciences, University of Massachusetts.
- Greene, D. W. and W. R. Autio. 1986. *Chemical Thinning*. Department of Plant & Soil Sciences, University of Massachusetts.
- Greene, D. W. And W. R. Autio. 1986. *Chemical Thinning Survey Results*. Department of Plant & Soil Sciences, University of Massachusetts.
- Autio, W. R. 1986. *An Introduction to Using INFONET with LC-Term*. Department of Plant & Soil Sciences, University of Massachusetts.
- Kimball, M. and W. R. Autio. 1987. *Rejuvenating McIntosh Apple Orchards: A Response to Alar Reduction*. University of Massachusetts Cooperative Extension Circular C-187 (22 pp).
- Anderson, J. F. and W. R. Autio. 1987. *Apple Varieties for Home Orchards*. University of Massachusetts Cooperative Extension Leaflet L-168R.
- Greene, D. W. and W. R. Autio. 1987. *Chemical Thinning -- 1987*. Department of Plant & Soil Sciences, University of Massachusetts.
- Lord, W. G., W. R. Autio, D. A. Kollas, H. E. Wave, J. L. Pearson, and J. F. Costante. 1987. *New England Chemical Weed Control for Tree Fruit*. New England University Cooperative Extensions.
- Greene, D. W. and W. R. Autio. 1988. *Chemical Thinning of Apples*. University of Massachusetts Cooperative Extension Leaflet L-544.
- Autio, W. R. and W. J. Bramlage. 1988. *Foliar Sprays of Calcium to Improve Apple Quality*. University of

- Massachusetts Cooperative Extension Leaflet L-553.
- Greene, D. W. and W. R. Autio. 1988. *Summer Pruning is Important for Early Harvest of High Quality McIntosh*. University of Massachusetts Cooperative Extension Leaflet L-554.
- Autio, W. R. and K. P. Leahy. 1988. *Block-specific Spraying Worksheet*. University of Massachusetts Cooperative Extension Leaflet L-555.
- Kaminsky, K. S., W. J. Bramlage, W. R. Autio, J. Sincuk, E. Johnson, and M. Normand. 1988. *A User-built System for Automated Monitoring and Controlling of CA Apple Storages*. University of Massachusetts Cooperative Extension Circular C-197 (9 pp).
- Lord, W. G. and W. R. Autio (coordinators). 1988. *New England Chemical Weed Control for Tree Fruit*. New England University Cooperative Extensions.
- Autio, W. R. (ed.) 1988. *New England Apple Production Guide*. University of Massachusetts Cooperative Extension Circular C-192 (32 pp).
- Autio, W. R. 1989. *Are Apples and Apple Products Safe to Eat?* University of Massachusetts Cooperative Extension Leaflet L-603.
- Autio, W. R. 1989. *Can We Grow Apples Without Using Alar?* University of Massachusetts Cooperative Extension Leaflet AG-529.
- Greene, D. W. and W. R. Autio. 1989. *Dormant Pruning to Improve Packout*. University of Massachusetts Cooperative Extension Leaflet AG-530.
- Autio, W. R. 1989. *Expansion of the Apple Harvest Season with Ethephon and NAA*. University of Massachusetts Cooperative Extension Leaflet AG-531.
- Bramlage, W. J. and W. R. Autio. 1989. *Rapid CA Establishment*. University of Massachusetts Cooperative Extension Leaflet AG-533.
- Bramlage, W. J. and W. R. Autio. 1989. *Cooling Apples at Harvest*. University of Massachusetts Cooperative Extension Leaflet AG-534.
- Bramlage, W. J. and W. R. Autio. 1989. *Calcium Drenches and Dips for Apples*. University of Massachusetts Cooperative Extension Leaflet AG-535.
- Greene, D. W. and W. R. Autio. 1990. *Mutsu Starch Chart*. University of Massachusetts Cooperative Extension Leaflet AG-646.
- Costante, J. F., W. R. Autio, W. J. Bramlage, W. J. Lord, and R. C. Lamb. Horticultural practices. In *Management Guide for Low-input Sustainable Apple Production*. Northeast Low-input Sustainable Agriculture Apple Production Project. pp. 9-32.
- Bramlage, W. J., S. A. Weis, and W. R. Autio. 1991. *Boron Treatments for Apple Trees in Massachusetts*. University of Massachusetts Cooperative Extension Leaflet AG-762.
- Autio, W. R. and D. W. Greene. 1991. *Controlling Growth of Apple Trees*. University of Massachusetts Cooperative Extension Leaflet F-101.
- Lord, W. J., J. Sincuk, and W. R. Autio. 1991. *Chemical Control of Root Suckers in Apple Trees*. University of Massachusetts Cooperative Extension Leaflet F-102.
- Autio, W. R. 1991. *Liberty Starch Chart*. University of Massachusetts Cooperative Extension Leaflet F-103.
- Williams, J. T. and W. R. Autio. 1991. *Cortland Starch Chart*. University of Massachusetts Cooperative Extension Leaflet F-104.
- Autio, W. R. and D. W. Greene. 1991. *Economic Benefits of Summer Pruning*. University of Massachusetts Cooperative Extension Leaflet F-105.
- Autio, W. R. 1991. *Gala Starch Chart*. University of Massachusetts Cooperative Extension Leaflet F-106.
- Autio, W. R. and D. R. Cooley. 1991. *Public Water Supply Protection Regulations: Alternative Products and Practices for Tree Fruit*. University of Massachusetts Cooperative Extension Leaflet F-107.
- Cooley, D. R., A. R. Bonanno, S. G. Schloemann, and W. R. Autio. 1992. *A Guide to Alternative Pesticide Products and Practices for Small Fruit: How to Comply with Massachusetts' Public Water Supply Regulations*. University of Massachusetts Cooperative Extension System Leaflet Ag-872.
- Prokopy, R., K. Leahy, M. Christie, W. Coli, W. Autio, D. Greene, and R. W. Straub. 1992. *14th Annual March Message to Massachusetts Fruit Growers (1992)*. University of Massachusetts Cooperative Extension System.
- Autio, W. R. 1993. *High-density Apple Training: Costs of Establishment*. University of Massachusetts Cooperative Extension System Leaflet F-110.

- Autio, W. R. 1993. *High-density Apple Training: Costs and Returns for the First Three Seasons*. University of Massachusetts Cooperative Extension System Leaflet F-111.
- Autio, W. R. 1993. *Peach Training Systems: Costs and Returns for the First Three Seasons*. University of Massachusetts Cooperative Extension System Leaflet F-112.
- Greene, D. W. and W. R. Autio. 1993. *Chemical Thinning Recommendations*. University of Massachusetts Cooperative Extension System Leaflet F-113.
- Autio, W. R. and D. W. Greene. 1993. *Limb Positioning*. University of Massachusetts Cooperative Extension System Leaflet F-114.
- Autio, W. R. and D. W. Greene. 1993. *Factors Affecting Apple Ripening*. University of Massachusetts Cooperative Extension System Leaflet F-115.
- Autio, W. R. and D. W. Greene. 1994. *Maintaining a Balance Between the Top and the Bottom of Apple Trees*. University of Massachusetts Cooperative Extension System Leaflet F-116.
- Autio, W. R. and D. W. Greene. 1996. *Importance of chemically thinning apples as it Relates to Fruit Size*. UMass Extension Leaflet F-117.
- Greene, D. W. and W. R. Autio. 1996. *Thinning Apples Chemically*. UMass Extension Leaflet F-118.
- Autio, W. R. and W. J. Bramlage. 1996. *Foliar Calcium Sprays for Apples*. UMass Extension Leaflet F-119.
- Autio, W. R. 1997. *Update on Rootstock Research in Massachusetts*. UMass Extension Leaflet F-123.
- Autio, W. R. 1997. *Nutrient Recommendations for Apples*. UMass Extension Leaflet F-124.
- Autio, W. R. 1998. *Printed and electronic resources for tree-fruit growers*. UMass Extension Leaflet F-125.
- Autio, W. R. 1998. *Prebloom nutrient applications for apple trees*. UMass Extension Leaflet F-126.
- Greene, D.W. and W.R. Autio. 2000. *Apogee – a new growth retardant for apples*. UMass Extension Leaflet F-127.
- Autio, W.R. and D.W. Greene. 2000. *Apple rootstock trials – UMass Horticultural Research Center – 1994-2000*. UMass Extension Leaflet.
- Autio, W.R. and D.W. Greene. 2001. *Controlling growth of apple trees*. UMass Extension Leaflet F-101R.
- Greene, D.W. and W.R. Autio. 2001. *Apogee – a new growth retardant for apples*. UMass Extension Leaflet F-127R.
- Greene, D.W. and W.R. Autio. 2002. *Apogee – a new growth retardant for apples*. UMass Extension Leaflet F-127R-2002.
- Autio, W.R. and D.W. Greene. 2002. *Limb positioning*. UMass Extension Leaflet F-114R.
- Autio, W.R., J. Clements, and J. Krupa. 2002. *Rootstock research in Massachusetts*. UMass Extension Leaflet.
- Autio, W.R. and D.W. Greene. 2003. *Expansion of the apple harvest season*. UMass Extension Leaflet F-120.
- Autio, W.R. 2005. *Tree Fruit in the Home Landscape*. CD produced as support material for the 2005 Mass Aggie Seminars.
- Autio, W.R. and J.M. Clements. 2005. *Assessing apple maturity with the starch-iodine test*. Video published on the UMass Fruit Advisor: <http://www.umass.edu/fruitadvisor/video/index.htm>.
- Autio, W.R. 2006. *Apple Trees in the Home Landscape*. CD produced as support material for the 2006 Mass Aggie Seminars.
- Autio, W.R. 2006. *Selecting, Planting, and Caring for Young Fruit Trees*. CD produced as support material for the 2006 Mass Aggie Seminars.
- Autio, W.R. and W.P. Cowgill. 2006. *Late-season Rescue Thinning with Ethephon*. University of Massachusetts Extension Factsheet F-129.
- Cowgill, W. and W. Autio. 2006. *Using Plant Growth Regulators for Return Bloom on Apple*. Rutgers Cooperative Extension Factsheet.
- Autio, W.R. 2007. *An Introduction to Growing Apple Trees in the Home Garden*. CD produced as support material for the 2007 Mass Aggie Seminars.
- Autio, W.R. 2007. *Growing Apple Trees in the Home Garden, Beyond Basics*. CD produced as support material for the 2007 Mass Aggie Seminars.
- Autio, W.R. 2007. *Small Apple Trees!* CD produced as support material for the 11th Annual Gardening Symposium.
- Autio, W.R. and W.P. Cowgill. 2006. *Late-season Rescue Thinning with Ethephon*. University of Massachusetts Extension Factsheet F-129.
- Cowgill, W., J. Clements, P. Perdomo, and W. Autio. 2007. *Apple tree pruning and training, A few basic rules for apple pruning* (both in English and Spanish). University of Massachusetts Extension Factsheet F-130.
- Cowgill, W.P. and W.R. Autio. 2007. *Enhancing return bloom on apple with plant growth regulators*. University of Massachusetts Extension Factsheet F-131.

- Cowgill, W., C. Wyenandt, K. Holmstrom, and W. Autio. 2007. *Which pumpkin fungicide program gives you the best bottom line?* Rutgers Cooperative Extension Factsheet.
- Autio, W. 2008. *Growing Apple Trees in the Home Garden*. CD Produced as support material for the 2008 Mass Aggie Seminars.
- Autio, W. 2008. *Pruning Apple and Peach Trees*. CD Produced as support material for the 2008 Mass Aggie Seminars.
- Autio, W. 2008. *Apple Trees on a Wire*. CD Produced as support material for the 12th Annual (2008) Gardening Symposium.
- Cooley, D., W. Autio, J. Clements, W. Cowgill, and R. Spitko. 2008. *An Annual Fire Blight Management Program for Apples*. University of Massachusetts Extension Factsheet F-133.
- Autio, W., W. Cowgill, and J. Clements. 2008. *Pruning and Training Fruit Trees in the Home Landscape*. University of Massachusetts Extension Factsheet F-132.
- Cooley, D., W. Autio, D. Greene, J. Clements, L. Los, G. Hamilton, A. Eaton, L. Berkett, T. Bradshaw, H. Faubert, G. Koehler, R. Moran, R. Gardner, M. Helms, W. Smith, A. Landers, A. Agnello, D. Rosenberger, K. Cox, J. Carroll, T. Robinson, D. Breth, P. Curtis, and L. Cheng. 2009. *New England Tree Fruit Management Guide*. New England and Cornell Cooperative Extension Systems, 248 pp.
- Autio, W. 2009. *Growing & Pruning Apple Trees in the Home Garden*. CD produced as support material for the 2009 Mass Aggie Seminars.
- Autio, W. 2009. *Grafting Apple Trees, A Hands-on Workshop*. CD produced as support material for the 2009 Mass Aggie Seminars.
- Autio, W. 2009. *Dwarf Apple Trees in Your Backyard*. CD produced as support material for the 13th Annual (2009) Gardening Symposium.
- Autio, W., J. Clements, G. Cook, A. Dowse, D. Gillespie, K. Nicewicz, M. Tougas, and S. Ware. 2009. *Orchard BMPs, A Handbook for Massachusetts Orchards Best Management Practices*. CD produced in support of the Massachusetts Farm Bureau's and the Massachusetts Department of Agricultural Resources' BMP Program.
- Autio, W. and W. Cowgill. 2009. *Late-season 'Rescue' thinning with ethephon*. University of Massachusetts Extension Factsheet F-129R.
- Cowgill, W. and W. Autio. 2009. *Enhancing return bloom of apple*. University of Massachusetts Extension Factsheet F-131R.
- Autio, W. J. Clements, and J. Krupa. 2009. *2009 NC-140 Peach Rootstock Trial in Massachusetts*. University of Massachusetts Extension Factsheet F-135.
- Autio, W. 2010. *Growing & Pruning Apple Trees in the Home Garden*. Produced as support material for the 2010 Mass Aggie Seminars.
- Autio, W. 2010. *Grafting Apple Trees, A Hands-on Workshop*. Produced as support material for the 2010 Mass Aggie Seminars.
- Autio, W. 2010. *Dwarf Apple Trees*. Produced as support material for the 6th Annual Berkshire Gardening Symposium.
- Autio, W., J. Krupa, and J. Clements. 2010. *2002 NC-140 Apple Rootstock Trial in Massachusetts*. University of Massachusetts Extension Factsheet F-138.
- Autio, W., J. Krupa, and J. Clements. 2010. *2010 NC-140 Apple Rootstock Trial in Massachusetts*. University of Massachusetts Extension Factsheet F-137.
- Autio, W., J. Krupa, and J. Clements. 2010. *2009 NC-140 Peach Rootstock Trial in Massachusetts*. University of Massachusetts Extension Factsheet F-135R.
- Autio, W. 2010. *Fruit Trees: An Integral Part of Today's Edible Landscape*. University of Massachusetts Extension Factsheet.
- Cowgill, W., C. Wyenandt, K. Holmstrom, and W. Autio. 2010. *Which Pumpkin Fungicide Program Gives You the Best Bottom Line*. Rutgers University Extension Factsheet.
- Autio, W. 2011. *Growing & Pruning Apple Trees in the Home Garden*. CD produced as support material for the 2011 Mass Aggie Seminars.
- Autio, W. 2011. *Grafting Apple Trees, A Hands-on Workshop*. CD produced as support material for the 2011 Mass Aggie Seminars.
- Autio, W. 2011. *Fruit Trees: An Integral Part of Today's Edible Landscape*. University of Massachusetts

Extension Factsheet.

Autio, W. and W. Cowgill. 2012. *Late-season 'Rescue' Thinning with Ethephon*. University of Massachusetts Extension Factsheet.

Autio, W. 2012. *Photos of Apple Varieties in the Renaissance Center's Renaissance Apple Orchard*. University of Massachusetts Extension Factsheet.

Autio, W.R. 2014. *Fruit trees in the home landscape*. UMass Extension Factsheet. 6 pp.

Autio, W.R., J.S. Krupa, and W.P. Cowgill. 2014. *Peach thinning*. UMass Extension Factsheet F-139I 2 pp.

Abstracts (78)

Bramlage, W. J., D. W. Greene, W. R. Autio, and J. M. McLaughlin. 1980. Effects of AVG on ripening of apples. *Northeast Region, Amer. Soc. Hort. Sci. Prog. Abstracts*.

Autio, W. R. and W. J. Bramlage. 1981. The effects of different concentrations of AVG on ripening of four apple cultivars. *Northeast Region, Amer. Soc. Hort. Sci. Prog. Abstracts*.

Autio, W. R. and W. J. Bramlage. 1981. Effects of different concentrations of AVG on ripening of four apple cultivars. *HortScience* 16:422.

Autio, W. R. and W. J. Bramlage. 1981. The effects of temperature and ethylene in storage on AVG-treated McIntosh apples. *HortScience* 16:424.

Bramlage, W. J., D. W. Greene, and W. R. Autio. 1982. Effects of Promalin on seed number and storage life of McIntosh apples. *Northeast Region, Amer. Soc. Hort. Sci. Prog. Abstracts*.

Autio, W. R. and W. J. Bramlage. 1985. Chilling-sensitivity during tomato fruit ripening. *HortScience* 20:185.

Autio, W. R. and W. J. Bramlage. 1985. Chilling-sensitivity of tomato fruit: The interaction of ripening and senescence. *HortScience* 20:587.

Autio, W. R., W. J. Bramlage, and D. W. Greene. 1986. A comparison of the time of ripening of several apple cultivars. *HortScience* 21:368.

Autio, W. R. 1987 The effects of rootstock on apple ripening. *HortScience* 21:379.

Autio, W. R. 1987. Rootstock effects on 'Delicious' apple ripening and quality. *HortScience* 22:1047.

Autio, W. R. and D. W. Greene. 1988. Summer pruning of 'McIntosh' apples: Effects on red color, early harvest, and yield. *HortScience* 23:676.

Greene, D. W. and W. R. Autio. 1988. Use of benzyladenine as a chemical thinner of 'McIntosh' apples: Thinning effectiveness, influence on fruit quality, and site of absorption. *HortScience* 23:677.

Greene, D. W. and W. R. Autio. 1989. Evaluation of ripening and fruit quality of 'Gala' and 'McIntosh' apples at harvest and following air storage. *HortScience* 24:219.

Greene, D. W. and W. R. Autio. 1989. Use of benzyladenine as a chemical thinner on apples. *Program & Abstracts, 86th Annu. Meet., Amer. Soc. Hort. Sci.*:72.

Costante, J. F. and W. R. Autio. 1989. Influence of rootstocks and nematicides on growth, yield, and lesion nematode populations of 'McIntosh' apple trees. *Program & Abstracts, 86th Annu. Meet., Amer. Soc. Hort. Sci.*:99.

Autio, W. R. 1989. New England apple industry. *Program & Abstracts, 86th Annu. Meet., Amer. Soc. Hort. Sci.*:147.

Autio, W. R. and D. W. Greene. 1990. Effects of crop load and harvest on apple ripening. *HortScience* 25:624.

Greene, D. W. and W. R. Autio. 1990. Notching techniques to increase branching of young apple trees. *HortScience* 25:624.

Autio, W. R. 1990. Effects of rootstock on 'Delicious' apple fruit properties. *HortScience* 25:1147.

Greene, D. W. and W. R. Autio. 1990. Notching techniques to increase branching of young apple trees. *HortScience* 25:1109.

Cooley, D. R., W. R. Autio, and J. Gamble. 1991. Summer pruning reduces flyspeck of apple. *Phytopathology* 81:121.

Costante, J. F., W. R. Autio, and L. P. Berkett. 1991. Influence of soil fumigants and a nematicide on growth and yield of 'McIntosh' apple trees on various rootstocks. *HortScience* 26:479.

Autio, W. R. and J. F. Costante. 1991. Ripening and storability of 'Liberty' and 'Empire' apples. *HortScience* 26:694.

Greene, D. W. and W. R. Autio. 1993. Evaluation of new apple cultivars in Massachusetts. *HortScience* 28:254

Autio, W. R. and D. W. Greene. 1993. Effects of several growth controlling techniques on apple trees. *HortScience* 28:558.

- Greene, D. W. and W. R. Autio. 1994. Evaluation of new apple cultivars. *HortScience* 29:519.
- Autio, W. R. 1994. Rootstock affects ripening of 'McIntosh' apples. *HortScience* 29:475.
- Autio, W. R. 1995. Rootstock and scion interact to affect apple tree performance. *HortScience* 30:771.
- Romaneau, L. K., C. J. DeMoranville, and W. R. Autio. 1997. Examination of the uniformity of sanding methods used to suppress dodder (*Cuscuta gronovii* Willd.) germination on cranberry bogs. *Abstracts of the North American Cranberry Research and Extension Workers Conference*.
- Romaneau, L. K., C. J. DeMoranville, and W. R. Autio. 1997. Raking to manually remove dodder infestations from cranberry bogs. *Abstracts of the North American Cranberry Research and Extension Workers Conference*.
- Autio, W. R. and D. C. Ferree. 2000. Rootstock and scion interact to affect tree performance: Results from the 1990 NC-140 Cultivar/Rootstock Trial. *Seventh International Symposium on Orchard and Plantation Systems*.
- Autio, W.R. 2000. Rootstock and scion interact to affect apple tree performance: Results from a 10-year trial by the NC-140 Technical Committee. *HortScience* 35:499-500.
- Casey, C., F. Mangan, S. Herbert, A. Carter, A. Barker, and W. Autio. 2002. The effect of light intensity and nitrogen on plant growth and leaf quality of ngo gai (*Eryngium foetidum* L.). *Abstracts of the XXVIth International Horticultural Congress & Exhibition*:187.
- Autio, W., J. Krupa, and J. Clements. 2003. Does rootstock differentially affect performance of Cortland, Macoun, McIntosh, and Pioneer Mac apple trees. *HortScience* 38:665.
- Autio, W., R. Crassweller, J.P. Privé. 2003. Rootstock affects performance of Ginger Gold apple trees. *HortScience* 38:667.
- Greene, D., W. Autio, and J. Krupa. 2004. Factors influencing preharvest drop of apples. *HortScience* 38:698.
- Porth, G., F. Mangan, W. Autio, and R. Wick. 2003. Evaluating organic and conventional management options of clubroot disease (*Plasmodiophora brassicae* Woron.) of brassica vegetable crops in Massachusetts. *HortScience* 38:730.
- Sandler, H.A., C. J. DeMoranville, and W. R. Autio. 2003. Economic evaluation of various establishment programs for new cranberry plantings. *Abstracts of the North American Cranberry Research and Extension Workers Conference*.
- Autio, W.R., J.A. Cline, R.M. Crassweller, C.G. Embree, M.E. Garcia, E.E. Hoover, K. Kosola, R.L. Perry, and T.L. Robinson. 2004. Early performance of McIntosh apple on several dwarf rootstocks in the 1999 NC-140 Rootstock Trial. *HortScience* 39:800.
- Autio, W.R., J.A. Cline, R.M. Crassweller, C.G. Embree, M.E. Garcia, E.E. Hoover, K. Kosola, R.L. Perry, and T.L. Robinson. 2004. Early performance of McIntosh apple on several semidwarf rootstocks in the 1999 NC-140 Rootstock Trial. *HortScience* 39:799.
- Autio, W.R., J.L. Anderson, B.H. Barritt, R.M. Crassweller, D.C. Ferree, G.M. Greene, S. Johnson, J. Masabni, M.L. Parker, G.L. Reighard, and M. Warmund. 2004. Early performance of Fuji apple on several dwarf rootstocks in the 1999 NC-140 Rootstock Trial. *HortScience* 39:800.
- Autio, W.R., J.L. Anderson, B.H. Barritt, R.M. Crassweller, D.C. Ferree, G.M. Greene, S. Johnson, J. Masabni, M.L. Parker, G.L. Reighard, and M. Warmund. 2004. Early performance of Fuji apple on several semidwarf rootstocks in the 1999 NC-140 Rootstock Trial. *HortScience* 39:799-800.
- Sandler, H., C. DeMoranville, and W. Autio. 2003. Economic evaluation of various establishment programs for new cranberry plantings. *North American Cranberry Research & Extension Workers Conference Guide*.
- Autio, W.R., J.L. Anderson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, T.L. Robinson, and M. Warmund. 2004. Early performance of Fuji and McIntosh apple on several dwarf rootstocks in the 1999 NC-140 Rootstock Trial. *VIII International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems*, ISHS.
- Autio, W.R., J.L. Anderson, B.H. Barritt, J.A. Cline, R.M. Crassweller, C.G. Embree, D.C. Ferree, M.E. Garcia, G.M. Greene, E.E. Hoover, S. Johnson, K. Kosola, J. Masabni, M.L. Parker, R.L. Perry, G.L. Reighard, T.L. Robinson, and M. Warmund. 2004. Early performance of Fuji and McIntosh apple on several semidwarf rootstocks in the 1999 NC-140 Rootstock Trial. *VIII International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems*, ISHS.
- Autio, W.R., J. Krupa, J.M. Clements, and D.W. Greene. 2006. Using naphthalene acetic acid, Prohexadione-Ca, ethephon, and scoring to differentially reduce vegetative growth in upper canopy of apple trees. *HortScience* 41:1030.

- Cowgill, W.P., W.R. Autio, and M. Maletta. 2007. Performance of four early Fuji cultivars in New Jersey. *HortScience* 42:429.
- Cowgill, W., W. Autio, M. Maletta, J. Clements, and J. Krupa. Differentially reducing growth in the upper canopy of apple trees with naphthalene acetic acid and prohexadione-Ca. *HortScience* 42:908.
- Cowgill, W.P., W.R. Autio, and M. Maletta. Early Fuji cultivar performance in New Jersey. *HortScience* 42:999.
- Clements, J., W. Cowgill, W. Autio, and D. Ward. 2008. Five-year performance of three dwarf apple rootstocks with Cameo apple. *HortScience* 43:1190.
- Cowgill, W., W. Autio, and J. Clements. 2008. Using naphthalene acetic acid (NAA) to reduce shoot growth when a heading cut is used to lower tree height in super-spindle apple trees. *9th International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems, Program and Abstracts*:97.
- Autio, W., T. Robinson, W. Cowgill, C. Hampson, M. Kushad, J. Masabni, R Parra, R. Perry, and C. Rom. 2008. Performance of Gala apple trees on Supporter 4, P.14, and different strains of B.9, M.9, and M.26 rootstocks as part of the 2002 NC-140 Apple Rootstock Trial. *9th International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems, Program and Abstracts*:112.
- Autio, W., T. Robinson, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, J. Masabni, M. Parker, R. Perry, G. Reighard, T. Roper, J. Schupp, and M. Warmund. 2008. Performance of several dwarfing rootstocks with 'Fuji' and 'McIntosh' as scion cultivars in the 1999 NC-140 Dwarf Apple Rootstock Trial. *9th International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems, Program and Abstracts*:128.
- Autio, W., T. Robinson, T. Bradshaw, J. Cline, R. Crassweller, C. Embree, E. Hoover, J. Masabni, M. Parker, R. Perry, G. Reighard, T. Roper, J. Schupp, and M. Warmund. 2008. Performance of several semidwarfing rootstocks with 'Fuji' and 'McIntosh' as scion cultivars in the 1999 NC-140 Semidwarf Apple Rootstock Trial. *9th International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems, Program and Abstracts*:141.
- Cowgill, W., W. Autio, and J. Clements. 2009. Using naphthalene acetic acid (NAA) to reduce shoot growth when a heading cut is used to lower tree height in super-spindle apple trees. *Plant Growth Regulator Meetings*.
- Cowgill, W., R. Magron, and W. Autio. 2009. Preliminary results with Pristine for growth enhancement of first-leaf Golden Delicious and Honeycrisp apples in a tall spindle system. *Plant Growth Regulator Meetings*.
- Sandler, H., K. Ghantous, P. Jeranyama, and W. Autio. 2009. Integrating flame cultivation into cranberry week management: Assessing crop damage and recovery response. *6th Integrated Pest Management Symposium, Program and Abstracts*.
- Ghantous, K., H. Sandler, P. Jeranyama, and W. Autio. 2009. Response of cranberry vines to hand-held flame cultivators -- Initial year evaluation. *Proceedings of the Northeastern Weed Science Society* 63:2.
- Cowgill, W., W. Autio, R. Magron, and M. Muehlbauer. 2010. Late thinning results with ethephon in NJ on apples in 2009. *Plant Growth Regulator Conference*.
- Clements, J., W. Cowgill, and W. Autio. 2010. Using a heading cut vs. notching vs. BA application to induce branching in 1st-leaf apple trees. *Plant Growth Regulator Conference*.
- Cowgill, W., W. Autio, S. Sollner-Figler, R. Magron, M. Maletta, M. Muehlbauer, and G. Sliffer. 2010. Performance of six early Fuji cultivars in New Jersey. *HortScience* 45:485.
- Cowgill, W., W. Autio, E. Dager, S. Sollner-Figler, K. Homstrom, R. Magron, M. Maletta, M. Muehlbauer, G. Sliffer, and C. Wyenandi. 2010. Evaluation of fungicide chemistries and programs for practical resistance development in cucurbit powdery mildew in New Jersey in 2009. *HortScience* 45:483-484.
- Popko, J., C. Ok, W. Autio, M. McGrath, and G. Jung. 2010. The effect of demethylation inhibitor fungicides on *Sclerotinia homoeocarpa* population structures. *Northeast Division APS Abstracts*.
- Ghantous, K., H. Sandler, W. Autio, and P. Jeranyama. 2010. Response of sawbrier, dewberry, and cranberry vines to infrared and open flame weed control. *Proceedings of the Northeastern Weed Science Society* 64:19-20.
- Clements, J., W. Autio, and W. Cowgill. 2011. Rescue thinning with Ethephon + System-CAL. *Plant Growth Regulator Conference*.
- Clements, J. and W. Autio. 2011. Apple thinning without carbaryl. *Plant Growth Regulator Conference*.
- Carleo, J., C.A. Wyenandt, G. Ghidui, and W. Autio. 2011. Testing Coragen (rynaxypyr) to prevent sunflower moth larvae damage. *Northeast Region, American Society for Horticultural Science*.
- Hoover, E., R. Marini, E. Tepe, W. Autio, A. Biggs, J. Clements, R. Crassweller, D. Foster, M. Foster, D. Miller, M.

- Parker, J. Racsko, T. Robinson, and M. Warmund. 2011. Apple rootstocks and cultivars: A case study in using eXtension to increase access to research-based information. *ASHS 2011 Annual Conference – Workshop Sessions*: 26.
- Cowgill, W., W. Autio, D. Ward, R. Magron, S. Solner-Figler, and J. Krupa. 2012. Effects of Gibberellic Acid on PF-14 ‘Jersey’ peaches in Massachusetts and New Jersey. *Plant Growth Regulator Conference* (Presented as a talk, February 2012, Wilkes Barre, PA).
- Carleo, J., D. Ward, C.A. Wyenandt, G. Ghidui, N. Polanin, and W. Autio. 2012. Results of application of Coragen (rynaxypyr) on reduction of sunflower moth larvae damage. *HortScience* 47(9):S2.
- Cowgill, W., W. Autio, D. Ward, R. Magron, S. Solner-Figler, and J. Krupa. 2012. Effects of Gibberellic Acid on PF-14 ‘Jersey’ peaches in Massachusetts and New Jersey. *HortScience* 47(9):S4.
- Clements, J., W. Cowgill, and W. Autio. 2012. Performance of Cameo apple trees on three dwarf rootstocks in Massachusetts and New Jersey as part of the NC-140 Regional Rootstock Research Project. *HortScience* 47(9):S5.
- Cotter, J., J. Talbert, J. Goddard, W. Autio, and L. McLandsborough. 2012. Influence of soil particles on the survival of *Salmonella* on plastic tomato harvest containers. *International Association of Food Protection*. (Presented as a talk, July 2012, Providence, RI).
- Cowgill, W., T. Robinson, M. Sazo, W. Autio. 2013. 2012 Chemical branching studies of Macoun and Golden Delicious in a Delaware nursery. *2013 Northeast Plant Grower Regulator Conference*, (presented as a talk, March, 2013, Wilkes Barre, PA).
- Reighard, G., W. Bridges, D. Archbold, A. Atucha, W. Autio, T. Beckman, B. Black, E. Coneva, K. Day, M. Kushad, R. Pokharel, R. Johnson, T. Lindstrom, M. Parker, T. Robinson, J. Schupp, M. Warmund, D. Wolfe. 2013. NC-140 peach rootstock testing in 13 U.S. states. *ISHS Peach Symposium*.
- Muehlbauer, N., W. Cowgill, A. Wyenandt, K. Holmstrom, S. Sollner-Figler, R. Magron, and W. Autio. 2014. 2013 New Jersey fungicide efficacy trial for powdery mildew of *Curcubita pepo* ‘Solid Gold.’ Presented at the Northeast Region of the American Society for Horticultural Science Meetings, January 2014.
- Cowgill, W., R. Magron, M. Beese, W. Autio, J. Clements, T. Robinson. 2014. Experience with Maxcel, Promalin, and Tiberon for branching nursery apple trees in Delaware in 2013 and 2014.. Annual Meeting of the Plant Growth Regulator Working Group, Wilkes Barre, PA.
- Cowgill, W., R. Magron, W. Autio, J. Krupa. 2014. Effects of GA and AVG on peach yield and fruit quality in New Jersey and Massachusetts. Annual Meeting of the Plant Growth Regulator Working Group, Wilkes Barre, PA.

Research Interests

Cropping efficiency of fruit trees on various rootstocks.
 Cropping and economic efficiency of various cultural management systems.
 Vegetative and reproductive growth management.
 Integrated crop management.
 Factors affecting fruit ripening.

Teaching Experience

Classes Taught:

PLSOIL S30	Orchard Management	1988-1989	4 credits
PLSOIL S34	Plant Nutrients	1990-1991	2 credits
PLNTSOIL 691A	Proposal Presentation	2006-2009 (Spring & Fall)	1 credit
STOCKSCH 100	Botany for Gardeners	1991, 2004-2012	4 credits
STOCKSCH 235	Pruning Fruit Crops	1989-2019	2 credits
STOCKSCH 661	Intermediate Biometry	1992-2018	4 credits
STOCKSCH 697A	Data Analysis & Interpretation	2003-2019 (Spring & Fall)	2 credit

Graduate Program Director, Department of Plant & Soil Sciences, 2003 to 2009.

Sustainable Food & Farming Associate of Science Degree Program Coordinator, 1988 to Spring 2014.
Major advisor for more than 150 undergraduate students.
Major advisor for 6 Ph.D. and 6 Masters degree students and served on more than 100 graduate committees.
Gave more than 400 presentations to Massachusetts fruit growers and other Extension audiences.

Professional Involvement

American Society of Horticultural Science

Associate Editor, 1995-2001
Backup Science Editor, 1996.
Member and Past chair of the Pomology Working Group.
Member of the Plant Growth Regulator Working Group.
Member of the Postharvest Physiology Working Group.
Past chair of the Rootstocks and Compound Genetic Systems Working Group.
Past member, Nominating Committee, Northeast Region.

American Pomological Society

Chair, Editorial Committee, 1992 to 2011.
Resident Agent, 1989 to present
Past member, Hedrick Award Committee.
Member, Advisory Board.

NC-140 Rootstock Research Committee

Chair, 1994, 2003.
Vice Chair, 1993, 2002.
Secretary, 1992, 2001.
Coordinator, 1990 Cultivar/Rootstock Planting, 1988 to its completion in 2002.
Coordinator, 1999 Dwarf McIntosh Apple Rootstock Planting, 1998 to its completion in 2010.
Coordinator, 1999 Semidwarf McIntosh Apple Rootstock Planting, 1998 to its completion in 2010.
Coordinator, 1999 Dwarf Fuji Apple Rootstock Planting, 1998 to its completion in 2010.
Coordinator, 1999 Semidwarf Fuji Apple Rootstock Planting, 1998 to its completion in 2010.
Coordinator, 2002 Apple Rootstock Planting, 2001 to its completion in 2012.
Coordinator, 2010 Honeycrisp Apple Rootstock Planting, 2010 to present.
Coordinator, 2010 Fuji Apple Rootstock Planting, 2010 to present.
Coordinator, 2015 Organic Apple Rootstock Planting, 2014 to present.
Member, Executive Committee, 1992 to present.
Member, 1992-1997 Project Re-write Committee.
Chair, 1997-2002, 2002-07, 2007-12, 2012-17 Project Re-write Committees.

New England Fruit Meetings and Trade Show

Program Chair, 1988-93.

Massachusetts Fruit Growers' Association

Secretary/Treasurer, 1993 to present.

Massachusetts Horticultural Society

Member, Board of Trustees, 2016 to present.
Member, Education Committee, 2016 to present.

Fruit Notes

Senior editor, 1986 to present.

Horticultural News

Co-editor, 2010 to present.

Journal of Tree Fruit Production

Senior editor, January, 1992 to 2004.

Journal of Horticultural Science & Biotechnology

Associate Editor, 1994 to 2015.