

### **Publications of Alan N. Lakso**

- Lakso, A.N. and W.M. Kliewer. 1975. Physical properties of phosphoenolpyruvate carboxylase and malic enzyme in grape berries. Amer. J. Enol. Viticult. 26:75-78.
- Lakso, A.N. and W.M. Kliewer. 1975. The influence of temperature on malic acid metabolism in grape berries I. Enzyme responses. Plant Physiol. 56:370-372.
- Lakso, A.N. 1975. Light studies in apple trees. New York's Food and Life Sci. Quart. 8(4):6-8.
- Lakso, A.N. 1976. Characterizing apple tree canopies by fisheye photography. HortScience 11:404-405.
- Lakso, A.N. and R.C. Musselman. 1976. Effects of cloudiness on interior diffuse light in apple trees. J. Amer. Soc. Hort. Sci. 101:642- 644.
- Lakso, A.N. and S.G. Carpenter. 1978. Control of regrowth in mechanically hedged apple trees with NAA and daminozide. HortScience 13:55-56.
- Lakso, A.N., W.F. Millier, R.A. Pellerin and S.G. Carpenter. 1978. Conversion of central leader apple trees for improved mechanical harvest. J. Amer. Soc. Hort. Sci. 103:284-187.
- Davies, F.S. and A.N. Lakso. 1978. Water relations in apple seedlings: changes in water potential components, abscisic acid levels and stomatal conductances under irrigated and non-irrigated conditions. J. Amer. Soc. Hort. Sci. 103:310-313.
- Pellerin, R.A., W.F. Millier, A.N. Lakso, G.E. Rehkugler, J.A. Throop and T.E. Allport. 1978. Apple harvesting with inertial vs. impulse trunk shaker on open-center and central-leader trees. Trans. ASAE 21:407-413.
- Lakso, A.N. 1978. Characterization of apple tree light climate with hemispherical photography. Acta Horticulturae 65:71 (Summary).
- Lakso, A.N. and J.E. Barnes. 1978. Apple leaf photosynthesis in alternating light. HortScience 13:473-474.
- Lakso, A.N. and W.M. Kliewer. 1978. The influence of temperature on malic acid metabolism in grape berries. II. Temperature responses of net dark C<sub>0</sub> fixation and malic acid pools. Amer. J. Enol. Viticult. 29:145-149.
- Lakso, A.N. and E.J. Seeley. 1978. Environmentally induced responses of apple tree photosynthesis. HortScience 13:646-650.
- Lakso, A.N. 1979. Seasonal changes in stomatal response to leaf water potential in apple. J. Amer. Soc. Hort. Sci. 104:58-60.

- Davies, F.S. and A.N. Lakso. 1979. Water stress responses of apple trees. I. Effects of light and soil preconditioning treatments on tree physiology. *J. Amer. Soc. Hort. Sci.* 104:392-395.
- Davies, F.S. and A.N. Lakso. 1979. Water stress responses of apple trees. II. Resistance and capacitance as affected by greenhouse and field conditions. *J. Amer. Soc. Hort. Sci.* 104:395-397.
- Davies, F.S. and A.N. Lakso. 1979. Diurnal and seasonal changes in leaf water potential components and elastic properties in response to water stress in apple trees. *Physiol. Plant.* 46:109-114.
- Ferree, D.C. and A.N. Lakso. 1979. Effect of selected dormant pruning techniques in a hedgerow apple orchard. *J. Amer. Soc. Hort. Sci.* 104:737-739.
- Pellerin, R.A., W.F. Millier, A.N. Lakso, G.E. Rehkugler and J.A. Throop. 1979. Apple harvesting with an inertial vs. impulse trunk shaker on open-center and central leader trees - Part II. *Trans. ASAE* 22:983-988.
- Lakso, A.N. 1980. Correlations of fisheye photography to canopy structure, light climate and biological responses to light in apple trees. *J. Amer. Soc. Hort. Sci.* 105:43-46.
- Lakso, A.N. 1980. Aspects of canopy photosynthesis and productivity in the apple tree. *Acta Horticulturae* 114:100-109.
- Lakso, A.N. 1981. An update on mechanical fruit harvesting in Europe. *Compact Fruit Tree* Vol. 14. pp. 132-134.
- Lakso, A.N. 1981. Importance of climate on apple production systems. *Compact Fruit Tree* Vol. 14. pp. 33-34.
- Millier, W.F., R.A. Pellerin and A.N. Lakso. 1981. Apple detachment by impact shaking. *Acta Horticulturae* 114:244.
- Lakso, A.N., C.S. Pratt, R.C. Pearson, R.M. Pool, R.C. Seem and M.J. Welser. 1982. Photosynthesis, transpiration, and water use efficiency in mature grape leaves infected with *Uncinula necator* (powdery mildew). *Phytopathology* 72:232-236.
- Lakso, A.N. 1982. Precautions on the use of excised shoots for photosynthesis and water relations measurements of apple and grape leaves. *HortScience* 17(3):368-370.
- Lakso, A.N. 1982. Fresh market apple mechanical harvesting research at Cornell. *Great Lakes Fruit Grower News* 21(4):20.
- Pellerin, R.A., W.F. Millier, J.A. Throop, A.N. Lakso, S.G. Carpenter. 1982. Apple harvesting with a double impact shaker. *Trans. ASAE* 25(6):1567-1574.

- Way, R.D., J.C. Sanford and A.N. Lakso. 1983. Breeding for high fruit yields. p. 353-367. In: Methods in Fruit Breeding, J.N. Moore and J. Janick (eds), Purdue Univ. Press, West Lafayette, IN.
- Lakso, A.N. 1983. Morphological and physiological adaptations for maintaining photosynthesis under water stress in apple trees. In: Stress effects on photosynthesis, H. Clijsters, R. Marcelle and M. Van Poucke, eds., Dr. W. Junk, The Hague, p.85-93.
- Lakso, A.N. and W.F. Millier. 1983. Tree designs for apple production systems. Proc. NY State Hort. Soc. 128:86-91.
- Lakso, A.N. 1984. Leaf area development patterns in young pruned and unpruned apple trees. J. Amer. Soc. Hort. Sci. 109:861-865.
- Lakso, A.N., A.S. Geyer, and S.G. Carpenter. 1984. Seasonal osmotic relations in apple leaves of different ages. J. Amer. Soc. Hort. Sci. 109:544-547.
- Lakso, A.N., J.F. Bierhuizen and G.F.P. Martakis. 1984. Light responses of photosynthesis and transpiration of two tomato cultivars under ambient and altered CO<sub>2</sub> and O<sub>2</sub>. Scientia Horticulturae 23:119-128.
- Olien, W.C. and A.N. Lakso. 1984. A comparison of dwarfing character and water relations of five apple rootstocks. Acta. Hort. 146:151-158.
- Millier, W.F., R.A. Pellerin, J.A. Throop, J.v.d. Werken, A.N. Lakso and S.G. Carpenter. 1984. The role of impact shaking in the harvest of apples. pp. 89-96. In: International Symposium on Fruit, Nut and Vegetable Harvesting Mechanization, Amer. Soc. Agric. Engin.
- Pool, R.M., R.C. Pearson, M.J. Welser, A.N. Lakso and R.C. Seem. 1984. The influence of powdery mildew on the yield and growth of Rosette grapevines. Plant Disease 68:590-593.
- Lakso, A.N. 1984. Weather patterns and apple yields. Great Lakes Fruit Grower News 23(4):20-21.
- Lakso, A.N. 1984. Principles of tree designs for production and mechanical harvest. Great Lakes Fruit Grower News 23(4):50-51.
- Lakso, A.N. 1985. The effects of water stress on physiological processes in fruit crops. Acta Horticulturae 171:275-290.
- Johnson, R.S. and A.N. Lakso. 1985. Relationships between shoot length, leaf area, shoot weight and accumulated growing degree-days in apple shoots. J. Amer. Soc. Hort. Sci. 110:586-590.
- Jones, H.G., A.N. Lakso and J.P. Syvertsen. 1985. Physiological control of water status in temperate and subtropical fruit trees. Horticultural Reviews 7:301-344.

Flore, J.A., A.N. Lakso and J.W. Moon. 1985. The effect of water stress and vapor pressure gradient on stomatal conductance, water use efficiency and photosynthesis of fruit crops. *Acta Horticulturae* 171:207-218.

Lakso, A.N. 1985. Climatic effects on apple yield potential. *Proc. N.Y. State Hort. Soc.* 130:131-139.

Johnson, R.S. and A.N. Lakso. 1986. A carbon balance model of a growing apple shoot. I. Development of the model. *J. Amer. Soc. Hort. Sci.* 111:160-164.

Johnson, R.S. and A.N. Lakso. 1986. A carbon balance model of a growing apple shoot. II. Simulated effects of light and temperature on long and short shoots. *J. Amer. Soc. Hort. Sci.* 111:164-169.

Lakso, A.N. 1986. Photosynthesis in fruit trees in relation to environmental factors. In: Regulation of photosynthesis in fruit trees, A. Lakso and F. Lenz, eds., N.Y. State Agricultural Experiment Station Spec. Publ.

Lakso, A.N. and F. Lenz. 1986. Regulation of apple tree photosynthesis in the autumn by temperature. p. 34-37. In: Regulation of photosynthesis in fruit trees, A. Lakso and F. Lenz, eds., N.Y. State Agricultural Experiment Station Spec. Publ., Geneva, NY.

Lakso, A.N., B.I. Reisch, J. Mortensen and M.H. Roberts. 1986. Stimulation of growth of in vitro propagated grapevines after transfer from culture by carbon dioxide enrichment. *J. Amer. Soc. Hort. Sci.* 111:634-638.

Olien, W.C. and A.N. Lakso. 1986. Effect of rootstock on apple (*Malus domestica*) tree water relations. *Physiologia Plantarum* 67:421-430.

Lakso, A.N. and T.L. Robinson. 1987. Understanding and influencing the effects of climate and microclimate on apple production. *Proc. Mich. State Hort. Soc. for 1986*, 116:63-67.

Lakso, A.N. 1987. The importance of climate and microclimate to yield and quality in horticultural crops. pp. 287-298, In: Agrometeorology, F. Prodi, F. Rossi and G. Cristoferi (eds.), 2nd Intl. Cesena Agric. Conf., Cesena, Italy.

Lakso, A.N. and M.C. Goffinet. 1987. Aspects of fruit size development in apple. *Compact Fruit Tree* 20: 104-107.

Lakso, A.N. and T.L. Robinson. 1987. Tree training system improves yields. *Amer. Fruit Grower* 197:(11)6-7.

Flore, J.A. and A. N. Lakso. 1988. Environmental and physiological regulation of photosynthesis in fruit crops. *Hort. Rev.* 11:111-157.

Robinson, T. L. and A. N. Lakso. 1988. Performance of an apple planting systems trial. *Great Lakes Fruit Grower* 27(12):30-32.

- Lakso, A. N. 1988. Interactions of cropping and light exposure on apple fruit development. Trans. Ill. State Hort. Soc. for 1987. 121:57-60.
- Lakso, A. N. 1988. Pruning and training apple trees for improved sunlight utilization. Trans. Ill. State Hort. Soc. for 1987. 121:61-65.
- Robinson, T.L. and A.N. Lakso. 1988. Performance of an apple planting systems trial. Compact Fruit Tree 21:55-65.
- Lakso, A.N., T.L. Robinson and S.G. Carpenter. 1989. The Palmette Leader: a tree design for improved light distribution. HortScience 24:271-275.
- Lakso, A.N., T.L. Robinson and R.M. Pool. 1989. Canopy microclimate effects on patterns of fruiting and fruit development in apples and grapes. pp. 263-274. In: C.J. Wright (ed.), Manipulation of fruiting, 47th Nottingham Easter School, Butterworths, London.
- Robinson, T.L. and A.N. Lakso. 1989. Light interception, yield and fruit quality of 'Empire' and 'Delicious' apple trees grown in four orchard systems. Acta Hort. 243:175-184.
- Robinson, T.L., A.N. Lakso and S. Hoying. 1989. Managing the Y-Trellis system. Amer. Fruit Grower 109(11):14, 16, 22, 23.
- Robinson, T.L., W.F. Millier, J.A. Throop, S.G. Carpenter, and A.N. Lakso. 1990. Mechanical harvestability of Y-shaped and pyramid-shaped 'Empire" and 'Delicious' apple trees. J. Amer. Soc. Hort. Sci. 115:368-374.
- Lakso, A.N. 1990. Interactions of physiology with multiple environmental stresses. HortScience 24:1365-1369.
- Lakso, A.N. and R.S. Johnson. 1990. A simplified dry matter production model for apple using automatic programming simulation software. Acta Hort. 276:141-148.
- Pool, R.M., R.M. Dunst and A.N. Lakso. 1990. Comparison of sod, mulch and herbicide floor management practices for 'Concord' grape production in non-irrigated vineyards. J. Amer. Soc. Hort. Sci. 115:872-877.
- Pool, R.M., R.M. Dunst, J.S. Kamas, W.W. Gunkel, A.N. Lakso and M.C. Goffinet. 1990. Shoot positioning native American (Concord-type) grapevines. NY Food Life Sci. Bull. No. 131.
- Martinson, T, T. Dennehy and A.N. Lakso. 1991. Reducing insecticide usage in New York vineyards: will it lead to serious problems with grape leafhopper? Grape Research News, NY State Agric. Exper. Station, Geneva, NY
- Robinson, T.L., A.N. Lakso and S.G. Carpenter. 1991. Canopy development, yield and fruit quality of 'Empire' and 'Delicious' apple trees grown in four orchard production systems for ten years. J. Amer. Soc. Hort. Sci. 116:179-187.

- Robinson, T.L. and A.N. Lakso. 1991. Bases of yield and production efficiency in apple orchard systems. *J. Amer. Soc. Hort. Sci.* 116:188-194.
- Robinson, T.L. and A.N. Lakso. 1991. Thinning strategies to improve 'Empire' apple fruit size. *Proc. N.Y. State Hort. Soc.* 136:219:225.
- Johnson, R.S. and A.N. Lakso. 1991. Approaches to modeling light interception. *HortScience* 26:1002-1004.
- Robinson, T.L., Z. Ren and A.N. Lakso. 1991. Modifying apple tree canopies for improved production efficiency. *HortScience* 26:1005-1012.
- Lakso. 1991. Water balance and drought stress in New York vineyards. *Grape Research News*, NYState Agric. Exper. Station, Geneva, NY
- Bonany, J., F. Camps, P. Vilardell and A.N. Lakso. 1991. Estudio de los parametros determinantes del desecamiento foliar en el peral Conference. p. 43-49. In: El peral y el Nashi. Tech. Journal, Fundacion "la Caixa", Barcelona.
- Lakso, A.N. and L. Corelli Grappadelli. 1992. Le tecniche di potatura e allevamento influenzano la ripartizione dei carboidrati e lo sviluppo dei frutti di melo. *Futticolta* 54(12):15-20.
- Lakso, A.N. 1992. The simplified dry matter production model for apple: estimation of canopy photosynthesis in discontinuous canopies. *Acta Hort.* 313:45-50.
- Lakso, A.N. and L. Corelli Grappadelli. 1992. Implications of pruning and training practices to carbon partitioning and fruit development in apple. *Acta Hort.* 322:231-239.
- Lakso, A.N., J. Wünsche and T. Robinson. 1993. Canopy management for orchard productivity: the importance of sunlight captured by spurs versus shoots. *NY Fruit Quarterly* 1(2):9-10.
- Lakso, A.N. 1993. Viticultural and physiological parameters limiting yield. In: R.M. Pool (ed.), 2nd Shaulis Symposium on Viticulture, NY State Agr. Exper. Sta. Spec. Publ.
- Lakso, A.N. 1993. A new look at irrigation in Northeast vineyards. *Vineyard Winery Management* 19(6):52-54.
- Robinson, T.L., J. Wünsche , and A. Lakso. 1993. The influence of orchard system and pruning severity on yield, light interception, conversion efficiency, partitioning index and leaf area index. *Acta Hort* 349:123-127.
- Lakso, A.N., J.P. Nyrop and S.S. Denning. 1994. Effects of mite feeding on apple tree function and performance. In: Proc. 1994 Ontario Hort Crops Conference, p. 28-32.

Lakso, A.N.. 1994. Effects of environmental stresses on apple productivity and performance. In: Proc. 1994 Ontario Hort Crops Conference, p. 14-18.

Robinson, T.L., W.C. Stiles, and A.N. Lakso. 1994. Managing 'Empire' orchards for production and fruit size. *Proc N.E. Fruit Meetings* 100:50-58.

Poni, S., A. N. Lakso, J.R. Turner, R.E. Melious. 1994. Interactions of crop level and late season water stress on growth and physiology of field-grown 'Concord' grapevines. *Amer. J. Enol. Vitic.* 45(2)252-258.

Poni, S., A. N. Lakso, J.R. Turner, R.E. Melious. 1994. The effects of pre- and post-veraison water stress on growth and physiology of potted Pinot Noir grapevines at varying crop levels. *Vitis* 32:207-214.

Corelli Grappadelli, L., A. N. Lakso and J.A. Flore. 1994. Early season patterns of photosynthate partitioning in exposed and shaded apple branches. *J. Amer. Soc. Hort. Sci.* 119:596-603.

Lakso, A.N. 1994. Viticultural and physiological parameters relating yield and fruit quality. *Grape Research News, NY State Agric. Exper. Station, Geneva, NY* 3(4):4-6.

Lakso, A.N. 1994. Apple. p. 3-42. In: Environmental physiology of fruit crops; Vol 1, Temperate crops. B. Schaffer and P.C. Andersen, eds., CRC Press, Boca Raton, FL.

Wünsche, J.N., A.N. Lakso and F.Lenz. 1994. Die Grundlage der Ertragsleistung von Apfel- (*Malus domestica* Borkh.) Anbausystem: Die Rolle der Lichtaufnahme bei Kurz- und Langtriebblättern. *Erwerbsobstbau* 36:188-193.

Goffinet, M. C., T.L. Robinson and A.N. Lakso. 1995. A comparison of 'Empire' apple fruit size and anatomy in unthinned and hand-thinned trees. *J. Hort. Sci.* 70(4):375-387.

Lakso, A.N., L. Corelli Grappadelli, J. Barnard and M.C. Goffinet. 1995. An expolinear model of the growth pattern of the apple fruit. *J. Hort. Sci.* 70(4):389-394.

Wünsche, J.N., A.N. Lakso and T.L. Robinson. 1995. Comparison of four methods for estimating total light interception by apple trees of varying forms. *HortScience* 30:272-2767.

Lakso, A.N., A.H. Francisconi, J. Nyrop and S.S. Denning. 1995. How crop load changes apple tree sensitivity to European Red Mite. *Proc. N.Y. State Hort. Soc.* 140:11-14.

Lakso, A.N., S.K. Brown, and M.C. Bourne. 1995. Observations on the relation of xylem dysfunction to fruit growth, sugar accumulation, softening and cracking of cherries and grapes. In: J. Flore (ed.), *Proceedings of the International Cherry Cracking Conference*, Mich. State Agric. Exper. Sta. Spec. Bull. (in press).

Lakso, A.N., A.H. Francisconi, J. Nyrop and S.S. Denning. 1995. Heavy crop loads increase apple tree sensitivity to European Red Mites. *NY Fruit Quarterly* 3(1):6-8.

Kamas, J., R.M. Pool, A.N. Lakso, R. Dunst and A. Fendinger. 1995. Legumes and our limited experience in Eastern viticulture. p. 27-30. In: (R.M. Pool, ed.), Organic grape and wine symposium, NY State Agric. Exp. Sta., Geneva, NY, Spec. Rpt. No. 69.

Pool, R.M., A.N. Lakso, R. Dunst, J.A. Robinson, A. Fendinger and T.J. Johnson. 1995. Weed management. p. 49-56. In: (R.M. Pool, ed.), Organic grape and wine symposium, NY State Agric. Exp. Sta., Geneva, NY, Spec. Rpt. No. 69.

Lakso, A.N. and S.S. Denning. 1996. Seasonal bioenergetic construction costs of apple fruits, leaves and shoots. *Acta Hort.* 416:163-168.

Wünsche, J.N., A.N. Lakso, T.L. Robinson, F. Lenz, and S.S. Denning. 1996. The bases of productivity in apple production systems: the role of light interception by different shoot types. *J. Amer. Soc. Hort. Sci.* 121:886-893.

Lakso, A.N., G.B. Mattii, J.P. Nyrop and S.S. Denning. 1996. Influence of European Red Mite on leaf and whole canopy CO<sub>2</sub> exchange, yield, fruit size, quality and return cropping in 'Delicious' apple trees. *J. Amer. Soc. Hort. Sci.* 121:954-958.

Francesconi, A.H.D., A.N. Lakso, J.P. Nyrop, J. Barnard and S.S. Denning. 1996. Carbon balance as a physiological basis for the interactions of European Red Mite and crop load on 'Starkrimson Delicious' apple trees. *J. Amer. Soc. Hort. Sci.* 121:959-956.

Francesconi, A.H.D., C.B. Watkins, A.N. Lakso, J.P. Nyrop, J. Barnard and S.S. Denning. 1996. Interactions of European Red Mite and crop load on maturity and quality, mineral concentrations and economic value of 'Starkrimson Delicious' apples. *J. Amer. Soc. Hort. Sci.* 121:967-972.

Lakso, A.N., A.H. Francesconi, J. Nyrop and C.B. Watkins. 1996. Influence of foliar pests on apple fruit size and quality. *NY Fruit Quarterly* 4(2&3):12-13.

Lakso, A.N., T.L. Robinson and M.C. Goffinet. 1996. Influence of fruit competition on size, and the importance of early thinning. *NY Fruit Quarterly* 4 (1):7-9.

Lakso, A.N. 1996. Apple fruit management - Fruit growth and development and implications for thinning. *Proc. 45th Benzie-Manistee Hort. Show*, p. 59-62.

Lakso, A.N. 1996. Apple orchard and canopy management - yields, quality and pest thresholds. *Proc. 45th Benzie-Manistee Hort. Show*, p. 74-78.

Lakso, A.N. 1996. Irrigation in New York Vineyards - Why Now? *Proc. NY State Hort Soc.* 141 (in press).

Lakso, A.N., and R.M. Pool 1996. Weather, physiology of berry development and ripening and time of harvest. *Proc. 25th NY Wine Industry Workshop, NYS Agric. Exper. Sta.*, p. 59-64.

Poni, S., A.N. Lakso, C. Intrieri, B. Rebucci and I. Filippetti. 1996. Laser scanning estimation of relative light interception by canopy components in different grape training systems. *Vitis* 35:177-182.

Wünsche, J.N., A.N. Lakso, S.S. Denning , and J. Barnard. 1997. Estimating the contribution of canopy components to direct light interception of apple trees using a laser-assisted device. *Environ. Exper. Bot.* 37:63-72.

Martinson, T.E., R. Dunst, A. Lakso , and G. English-Loeb. 1997. Impact of feeding injury by Eastern Grape Leafhopper (Homoptera:Cicadellidae) on yield and juice quality of Concord grapes. *Amer. J. Enol. Vitic* 48:291-302.

Rebucci, B., S. Poni, C. Intrieri, E. Magnanini, and A.N. Lakso. 1997. Effects of manipulated berry transpiration on post-veraison sugar accumulation. *Austral. J. Grape Wine Res.* 3 (2): 57-65.

Lakso, A.N. 1997. Managing supply and demand in the apple tree. *The Mountaineer Grower* No. 542:35-43.

Lakso, A.N. 1997. Apple Orchard and Canopy Management - Yields, Quality and Pest Thresholds. *The Mountaineer Grower* No. 543:4-11.

Al-hazmi, M., A.N. Lakso and S.S. Denning. 1997. Whole canopy versus single leaf gas exchange responses to water stress in Cabernet Sauvignon grapevines. In: Proc. IVth International Symposium on Cool Climate Viticulture and Enology. C. Edson, T. Wolf, R. Pool, A. Reynolds, T. Henick-Kling, T. Acree, B. Reisch, and E. Harkness (eds.). pp II 47-48. Eastern Section, Am. Soc. Enol. Vitic., Geneva, NY

Lakso, A.N., S.S. Denning, R. Dunst, A. Fendinger and R.M. Pool. 1997. Comparisons of growth and gas exchange of conventionally- and minimally-pruned 'Concord' grapevines. In: Proc. IVth International Symposium on Cool Climate Viticulture and Enology. C. Edson, T. Wolf, R. Pool, A. Reynolds, T. Henick-Kling, T. Acree, B. Reisch, and E. Harkness (eds.). pp IV 11-12. Eastern Section, Am. Soc. Enol. Vitic., Geneva, NY

Lakso, A.N. and T.L. Robinson. 1997. Principles of orchard systems management - optimizing supply, demand and partitioning in apple trees. *Acta Hort.* 451: 405-415.

Francesconi, A.H.D., A.N. Lakso, and S.S. Denning. 1997. Light and temperature effects on whole-canopy net carbon dioxide exchange rates of apple trees. *Acta Hort.* 451:287-294.

Bepete, M. and A.N. Lakso. 1997. Apple fruit respiration in the field: relationships to fruit growth rate, temperature, and light exposure. *Acta Hort.* 451:319-326.

Tustin, D.S., D. Ferree, S. Myers, L. Corelli Grappadelli, A. Lakso, J. Flore, R. Perry, S. Breitkreuz, B. Barritt, B. Konishi, C. Rom, A. Webster, C. Atkinson, J. Palmer, W. Cashmore. 1997. The international apple growth study. *Acta Hort* 451:693-699.

Lakso, A.N. 1997. Understanding apple productivity as supply and demand. *NY State Fruit News* 1(1): 44-45, in: *Great Lakes Fruit Grower News*, May issue.

Corelli Grappadelli, L., S. Sansavini, and A.N. Lakso. 1997. The efficiency of the apple canopy in high density systems. *Compact Fruit Tree* 30:18-24.

Lakso, A.N., L. Corelli Grappadelli, J. Wünsche and T. Robinson. 1997. Understanding apple tree productivity - Balancing carbohydrate supply and demand. *Compact Fruit Tree* 30:11-17.

Rebucci, B., S. Poni, C. Intrieri, E. Magnanini, and A.N. Lakso. 1998. Effects of manipulated berry transpiration on post-veraison sugar accumulation. *Acta Hort.* (in press).

Lakso, A.N., M. Bepete, M.C. Goffinet, and L. Corelli Grappadelli. 1998. Aspects of carbon supply and demand in apple fruits. *Acta Hort.* 466:13-18.

Bepete, M. and A.N. Lakso. 1998. Differential effects of shade on early season fruit and shoot growth rates in 'Empire' apple branches. *HortScience* 33: 823-825.

Lakso, A.N., R.M. Dunst, B. Shaffer and A. Fendinger. 1998. Experiences with supplemental irrigation in New York vineyards. *Vineyard and Winery Management* 24(3):72-74.

Robinson, T., A. Lakso, E. Stover and S. Hoying. 1998. Practical apple thinning programs for New York. *NY Fruit Quart.* 6(1):14-18.

Francesconi, A.H.D. and A. N. Lakso. 1998. La carica dei frutti influenza la suscettibilità del melo al ragnetto rosso. *Frutticoltura* (6):73-76.

Cuykendall, C.H., G.B. White, B.E. Shaffer, A.N. Lakso and R.M. Dunst. 1999. Economics of drip irrigation for juice grape vineyards in New York State. *Res. Bul.* 98-07, Dept. Agric, Resource Manage. Econ, Cornell University, Ithaca, New York, 21 p.

Lakso, A.N. 1999. Supply and demand: water supply and demand influence vineyard management. *Amer. Fruit Grower* (April): 2,4-5.

Lakso, A.N. 1999. Water use and water management in northeast vineyards. *Proc. Mich. State Hort. Soc.* 128:132-137.

Lakso, A.N. 1999. Physiology of minimal versus normal pruning of Concord grapes. *Proc. Mich. State Hort. Soc.* 128:138-141.

Lakso, A.N., J. Wünsche, J.W. Palmer, and L. Corelli Grappadelli. 1999. Measurement and modeling of carbon balance of the apple tree. HortScience 34:1040-1047.

Lakso, A.N., R.M. Dunst and A. Fendinger. 1999. Responses to drought of balance-pruned and minimally-pruned 'Concord' grapevines. Acta Hort. 493:103-107.

Lakso, A.N., R.M. Piccioni, S.S. Denning, F. Sottile and J.Costa Tura. 1999. Validating an apple dry matter production model with whole canopy gas exchange measurements in the field. Acta Hort. 499:115:122.

## 2000

Wünsche, J. and A. N. Lakso. 2000. Apple tree physiology - implications for orchard and tree management. Compact Fruit Tree 33(3):82-88.

Comas, L.H., D.M. Eissenstat and A.N. Lakso. 2000. Assessing root mortality and decomposition in a study of canopy pruning in Concord grape. New Phytologist 147:171-178.

Lakso, A.N. and R.M. Pool. 2000. Drought stress effects on vine growth, function, ripening and implications for wine quality. Proc. 29th NY Wine Industry Workshop, NYS Agric. Exper. Sta., p 86-90.

Lakso, A.N. 2000. Basics of water balance in New York vineyards. Proc. 29th NY Wine Industry Workshop, NYS Agric. Exper. Sta., p 94-101.

Pool, R.M. and A.N. Lakso. 2000. Recognizing and responding to drought stress in maturing grapevines. Proc. 29th NY Wine Industry Workshop, NYS Agric. Exper. Sta., p. 102-114.

Wünsche, J. and A. N. Lakso. 2000. The relationship between leaf area and light interception by spur and extension shoot leaves to apple orchard productivity. HortScience 35:1202-1206.

Psarras, G., I.A. Merwin, A.N. Lakso and J.A. Ray. 2000. Root growth phenology, root longevity, and rhizosphere respiration of field-grown 'Mutsu' apple trees on 'Malling 9' rootstock. J. Amer. Soc. Hort. Sci. 125:596-602.

Lakso, A.N., J. Wünsche, J.W. Palmer, and L. Corelli Grappadelli. 2000. Misura e modellizzazione del bilancio del carbonio nel melo. Frutticoltura 62(6):99-106.

Rebucci, B., S. Poni, C. Intrieri, E. Magnanini , and A.N. Lakso. 2000. Effects of manipulated berry transpiration on post-veraison sugar accumulation. Acta Hort. 513:467-475.

## 2001

Lakso, A.N. and R.M. Pool. 2001. Water status in vineyards in erratic climates: effects on productivity and wine quality. Proc. 16th Midwest Regional Grape and Wine Conf. pp. 1-9.

Lakso, A.N., T.L. Robinson, M.C. Goffinet and M.D. White. 2001 Apple fruit growth responses to varying thinning methods and timing. *Acta Hort* 557:407-412. (NZ Orchard Systems/Rootstock/Phys Symposium).

Lakso, A.N., M.D. White and D.S. Tustin. 2001. Simulation modeling of the effects of short and long-term climatic variations on carbon balance of apple trees. *Acta Hort.* 557:473-480. (NZ Orchard Systems/Rootstock/Phys Symposium).

Eissenstat, D.M., L.H. Comas, L.J. Anderson, and A.N. Lakso. 2001. Root Biology in Grapes: A Case Study of the Effects of Canopy Pruning and Irrigation on Concord Root Dynamics. Penn. Fruit News (in press).

Lakso, A.N. and R.M. Pool. 2001. The effect of water stress on vineyards and wine quality in Eastern climates. *Wine East* 29(4):12-20,51.

Bates, T.R., G. English-Loeb, R.M. Dunst, T. Taft , and A. Lakso. 2001. The interaction of phylloxera infection, rootstock, and irrigation on young Concord grapevine growth. *Vitis* 40:225-228.

## **2002:**

Lakso, A. N., R.M. Pool, L. Cheng, T. Martinson and K-T. Li. 2002. Drought and Water Stress in New York Vineyards and the Potential for Atypical Aging of New York Wines. Proc. 31st NY Wine Industry Workshop, NYS Agric. Exper. Sta., p

Lakso, A.N. and J. P. Nyrop. 2002. Carbon balance modeling approaches to integrating the effects of foliar pests, environment, and cultural practices in apples. *Acta Hort.* 584:221-228.

Lakso, A.N., D.M. Eissenstat, L. Comas and R. Dunst. 2002. Effects of Irrigation and Pruning on Concord Grape Productivity and Seasonal Root Development. 2002 Proc. Irrig.Association (CD-ROM)

K.-T. Li, A.N. Lakso, R. Piccioni, and T.L. Robinson. 2002. Summer Pruning: the good, the bad and the ugly. *NY Fruit Quarterly* 10(4): 29-31.

Lakso, A.N. 2002. Getting a "feel" for water stress. *Finger Lakes Vineyard Notes* No. 7 (July 23), pp. 3-4.

## **2003:**

Lakso, A.N. and M.C Goffinet. 2003. Fruit growth patterns. p. 91-101. In: Concise encyclopedia of temperate tree fruit. T. Baugher and S. Singha (eds.), Haworth Press, Binghamton, NY.

Lakso, A.N. 2003. Water relations of apples. P. 167-194. In: Apples: botany, production and uses. D.C. Ferree and I.A. Warrington (eds.), CAB International, Wallingford, Oxon, UK.

Lakso, A.N. and J.A. Flore. 2003. Carbon partitioning and plant growth. p. 21-30. In: Concise encyclopedia of temperate tree fruit. T. Baugher and S. Singha (eds.), Haworth Press, Binghamton, NY.

Anderson, L.J., L.H. Comas, A.N. Lakso and D.M. Eissenstat. 2003. Multiple factors in root survivorship: a four-year study in Concord grape. New Phytologist 158(3): 489-501.

Lakso, A.N., D.M. Eissenstat, L. Comas and R. Dunst. 2003. Effects of Irrigation and Pruning on Concord Grape Productivity and Seasonal Root Development. International Water and Irrigation 23 (2)32-34.

Li, K-T., A.N. Lakso, R.M. Piccioni, and T.L. Robinson. 2003. Summer pruning reduces whole-canopy carbon fixation and transpiration in apple trees. Journal of Horticultural Science and Biotechnology 78:749-754.

Li, K-T. and A.N. Lakso. 2003. Summer pruning effects on fruit size, fruit quality, return bloom, and root growth in apple. Journal of Horticultural Science and Biotechnology 78: 755-761.

Li, K-T., J.P. Nyrop and A.N. Lakso. 2003. Effects of spotted tentiform leafminer and european red mite on apple leaf function and crop development. NY Fruit Quarterly 11(4): 29-31.

## 2004

Li, K-T. and A.N. Lakso. 2004. Photosynthetic ability of apple spur leaves after re-exposure by summer pruning. HortScience 39:969-972.

Calderón-Zavala, G., A.N. Lakso and R.M. Piccioni. 2003. Temperature effects on fruit and shoot growth in the apple (*Malus domestica*) early in the season. Acta Hort. 636:447-453.

Corelli-Grappadelli, L. and A.N. Lakso. 2004. Fruit development in deciduous tree crops as affected by physiological factors and environmental conditions. Acta Hort. 636:425-441.

Robinson, T.L. and A.N. Lakso. 2004. Variation between years and within years on chemical fruit thinning efficacy of apple during cool springs. Acta Hort. 636:283-294.

Dragon, D., A.N. Lakso, and R.M. Piccioni. 2004. Transpiration of an apple orchard in a cool humid climate: measurement and modeling. Acta Hort. 664:175-180.

## 2005

Wolfe, D.W., M.D. Schwartz, A.N. Lakso, Y.Otsuki, R.M. Pool and N.J Shaulis. 2005. Climate change and shifts in spring phenology of three horticultural woody perennials in the northeastern United States. *Internat. J Biometeorol.* 49(5):303-309. (*online 9 Dec 2004*)

Dragoni, D., A.N. Lakso and R.M. Piccioni. 2005. Measuring transpiration in apple trees using heat pulse sap flow gauges calibrated with whole-canopy gas exchange chambers. *Ag. Forest Meteorol.* 130:85-94.

Goldschmidt, E.E. and A. N. Lakso. 2005. Fruit tree models: scope and limitations. In: Information and Communication Technology (ICT) Development and Adoption: Perspectives of Technological Innovation, (E. Gelb, A. Offer, eds.), European Federation for Information Technologies in Agriculture, Food and the Environment (web only)  
<http://departments.agri.huji.ac.il/economics/gelb-main.html>  
and/or  
<http://topics.developmentgateway.org/environment/rc/ItemDetail.do?itemId=1039620>

Lakso, A.N. and T. Martinson. 2005. Vine water use and getting a “feel” for water stress. Finger Lakes Vineyard Notes No.6, 1 August 2005, p. 1-2.

Lakso, Alan.N. and David M. Eissenstat. 2005. Crop Load – Physiology, Modeling and Relationships to Root Growth in Grapevines. Proc. 12<sup>th</sup> Austral. Wine Ind. Tech. Conference, (R.J. Blair, P.J. Williams, and I.S. Pretorius eds.), Austral. Wine Ind. Tech Conf. Inc, , pp.38-45.

Corelli Grappadelli, L. and Alan N. Lakso. 2005. L’effetto di fattori fisiologici e delle condizioni ambientali sullo sviluppo dei frutti. *Italus Hortus* 12(1):19-32.

Comas, L.H., L.J. Anderson, R.M. Dunst, A.N. Lakso and D.M. Eissenstat. 2005. Canopy and environmental control of root dynamics in a long-term study of ‘Concord’ grape. *New Phytologist* 167:829-840.

Lakso, A.N., and S. Poni. 2005. “VitiSim” – A Simplified Carbon Balance Model of a Grapevine. Proc. GESCO, pp 478-484.

Huang, X., A.N. Lakso and D.M. Eissenstat. 2005. Interactive effects of soil temperature and moisture on ‘Concord’ grape root physiology. *J. Experimental Botany* 56(420): 2651-2660.

Greene, D.W., A.N. Lakso, and T.L. Robinson. 2005. Predicting chemical thinner response on apples. *Compact Fruit Tree* 38(3):17-20.

## 2006

- Smart, D.R., E. Schwass, N.J. Shaulis, A.N. Lakso and L. Morano. 2006. Grapevine rooting patterns: A comprehensive analysis and a review. Amer. J. Enol. Vitic. 57:89-104.
- Dragoni, D., A.N. Lakso, R.M. Piccioni. 2006. Transpiration of grapevines in the humid Northeastern United States. Amer. J. Enol. Vitic. 57(4):460-467.
- Eissenstat, D.M., A.N. Lakso, D.R. Smart, T.L. Bauerle, L.H. Comas. 2006. Grapevine Root Dynamics. pp. 60-65, In: Proc. Workshop Carbohydrate Dynamics in Grapes, R.R. Walker, ed., CSIRO Merbein, Vic., Australia
- Lakso, A.N. 2006. "VitiSim" – A Simplified Carbon Balance Model of a Grapevine. pp. 4-11, In: Proc. Workshop Carbohydrate Dynamics in Grapes, R.R. Walker, ed., CSIRO Merbein, Vic., Australia
- Lakso, A.N., Duane W. Greene and John W. Palmer. 2006. Improvements on an Apple Carbon Balance Model. Acta Hort. 707:57-61.
- Eissenstat, D.M., Xuming Huang, and Alan N. Lakso. 2006. Modeling carbon allocation below ground. Acta Hort. 707:143-150.
- Nyrop, J. P. and A. N. Lakso. 2006. Modeling from a crop protection decision support perspective: What is most important? Acta Hort. 707:187-195.
- Eissenstat, D.M., A.N. Lakso, D. Neilsen, D.R. Smart, T.L. Bauerle, L.H. Comas and G.H. Neilsen. 2006. Seasonal Patterns of Root Growth in Relation to Shoot Phenology in Grape and Apple. Acta Hort. 721:21-26.
- Lakso, A.N., T.L. Robinson and D.W. Greene. 2006. Integration of environment, physiology and fruit abscission via carbon balance modeling – implications for understanding growth regulator responses. Acta Hort. 727:321-326.
- Parra-Quezada, Rafael, Terence L. Robinson, Jason L. Osborne, Alan N. Lakso and Leonardo B. Parra-Bujanda. 2006. Temperature and chemical thinner affect fruit set and growth of 'Empire' apple. Acta Hort. 727:327-336.
- Lakso, A.N. 2006. Vineyard variability and wine quality – improving it with irrigation. Proc. 35<sup>th</sup> NY Wine Industry Workshop, Geneva, NY pp 56-59.

## 2007

- Corelli-Grappadelli, L. and A.N. Lakso. 2007. Is Maximizing Orchard Light Interception Always the Best Choice? Acta Hort 732:507-518.
- Turechek, W.W., M.C. Heidenreich, A.N. Lakso, and M.P. Pritts. 2007. Estimation of the impact of leaf scorch on photosynthesis and "physiological-lesion" size in strawberry. Can. J. Plant Pathol. 29:159-165.

Lakso, A.N. 2007. Apple fruit growth – How's it all work? Proc. 2007 Empire State Fruit & Veg. Expo, pp 18-20, Cornell Coop. Extension.

Lakso, A.N. 2007. Water and crop stress effects on vine function and crop ripening. pp. 88-89. Proc. Viticulture 2007, Cornell Univ.

Lakso, A.N. and D.M. Eissenstat. 2007. Basics of grape root biology. pp. 97-98. Proc. Viticulture 2007, Cornell Univ.

Lakso, A.N., T.L. Robinson and D.W. Greene. 2007. Using an Apple Tree Carbohydrate Model to Understand Thinning Responses to Weather and Chemical Thinnings. NY Fruit Quarterly 15(3): 16-19.

Cheng, L., G. Xia, A.N. Lakso and M. Goffinet. 2007. How does nitrogen affect 'Gala' fruit size? NY Fruit Quarterly 15(3): 3-5.

Lakso, A.N. 2007. Understanding and managing the carbohydrate supply:demand balances for fruit development in the apple tree. Compact Fruit Tree 40(3):2-6.

## 2008

Lakso, A.N. R.M. Pool and R.M. Dunst, 2008. Effects of Vineyard Floor Management on Soil Moisture and Vine Water Status. Proc. Finger Lakes Grape Conf. pp 40-42.

Lakso, A.N., D.M. Eissenstat and R.M. Dunst. 2008. Summary of Root Studies in Concord Grapes. Proc. Lake Erie Regional Grape Conf. 24-25.

Zhou, C., A.N. Lakso, T.L. Robinson and S. Gan. 2008. Isolation and characterization of genes associated with shade-induced apple abscission. Molecular Genetics and Genomics 280:83–92 DOI 10.1007/s00438-008-0348-z.

Lakso, A.N., D.S. Intrigliolo and D.M. Eissenstat. 2008. Modeling 'Concord' grapes with "VitiSim", a simplified carbon balance model: understanding pruning effects. Acta Hort. 803: 243-250.

Ryona I., B.S. Pan, D.S. Intrigliolo, A.N. Lakso, and G.L. Sacks. 2008. Effects of Cluster Light Exposure on 3-isobutyl-2-methoxypyrazine Accumulation and Degradation Patterns in Red Winegrapes (*V. vinifera*. L. cv. Cabernet Franc). J. Ag. Food Chem. 56 (22):10838–10846 DOI: 10.1021/jf801877y.

Intrigliolo, D.S., A.N. Lakso and R.M. Piccioni. 2008. Grapevine cv. 'Riesling' water use in the northeastern United States. Irrig. Science 27:253–262. (online DOI 10.1007/s00271-008-0140-1)

Lakso, A.N., T.L. Robinson, D.W. Greene. 2008. Using an apple tree carbohydrate model to understand thinning responses to weather and chemical thinnings. Compact Fruit

Tree Vol. 41 Spec. Issue: Intensive Workshop On Plant Growth Regulators And Crop Load Management, p 17-20.

Robinson, T.L. and A.N. Lakso. 2008. Predicting and understanding chemical thinner response in real time. Journee Pomicole Provinciale p. 34-41.

Robinson, T.L. and A.N. Lakso. 2008. Predicting and understanding chemical thinner response in real time. Proc. Great Lakes Fruit Workers Annual Conference, p. 15-18.

## 2009

Intrigliolo, D.S., A.N. Lakso and M. Centinari. 2009. Effects of the whole vine versus single shoot- crop level on fruit growth in *Vitis labruscana* cv. Concord. Vitis 48:1-5.

Intrigliolo, D.S. and A.N. Lakso. 2009. Berry abscission is related to berry growth in *Vitis labruscana* 'Concord' and *Vitis vinifera* 'Riesling'. Vitis 48:53-54.

Xia, G., L. Cheng, A. Lakso and M. Goffinet. 2009. Effects of nitrogen supply on source-sink balance and fruit size of 'Gala' apple trees. J. Amer. Soc. Hort. Sci. 134:126–133.

Waterhouse, A.L., A. Lakso, M. Keller, E. Hellman, C. Butzke, B. Zeecklein. 2009. Impact of Innovation in Flavor: A Call to Action. Wine Business Monthly \_\_\_\_\_.

D.M. Eissenstat, A.N. Lakso, H. Xu, K. Link, T. Adams and R.M. Dunst. 2009. Crop level effects on long-term concord grape fine root dynamics. Proc. 16<sup>th</sup> GiESCO Int'l Conf. Davis CA. pp. 87-92.

Lakso, A.N., D.M. Eissenstat, K. Link, P. Joy and R.M. Dunst. Crop level effects on long-term 'concord' grape growth and biomass distribution. Proc. 16<sup>th</sup> GiESCO Int'l Conf. Davis CA. pp. 83-86.

Volder, A. L.J. Anderson, D.R. Smart, A.J. Bloom A.N. Lakso and D.M. Eissenstat. 2009. Estimating nitrogen uptake of individual roots in container- and field-grown plants using a <sup>15</sup>N-depletion approach. Func. Plant Biol. 36:621-628

Lakso, A.N. and G.L. Sacks. 2009. Vine balance: what is it, and how does it change over the season? In: Proc. Intl. Grapevine Canopy Manage. Symp., Davis, CA, July 2009, pp.21-25.

Robinson, T.L. and A.N. Lakso. 2009. Predicting and understanding chemical thinner response in real time. Proc. 2009 Empire State Fruit Veg. Expo. P. 43-45.

Robinson, T.L., A.N. Lakso and S.A. Hoying. 2009. Chemical thinning and return bloom of apple. Ohio Prod. Growers & Marketers Assn. Today, Summer issue, p. 4-6.

Intrigliolo, D.S., A.N. Lakso and R.M. Piccioni. 2009. Using the heat pulse "Tmax"

procedure to estimate grapevine water use in a humid climate. *Acta Hort.* 846:177-184.

## 2010

Lakso, A.N., T.E. Martinson, A.T. DeGaetano and K. Kwasnowski. 2010. The vineyard site evaluation project and grower website. *Proc. Viticulture 2010*, pp. 54-57.

Lakso, A.N. 2010. Estimating the environmental footprint of New York apple orchards. *New York Fruit Quarterly* 18(1):26-28.

Lakso, A.N. and G.L. Sacks. 2010. Growing season dynamics – Vine balance impact on methoxypyrazines. *Practical Winery and Vineyard*, May/June,pp. 34-49; 73.

## 2011

Intrigliolo, D.S. and A.N. Lakso. 2011. Effects of light interception and canopy orientation on grapevine water status and canopy gas exchange. *Acta Hort.* 889:99-104.

Dragon, D. and A. N. Lakso. 2011. An apple-specific ET model. *Acta Hort.* 903:1175-1180.

Lakso, A.N. 2011. Early fruit growth and drop – the role of carbon balance in the apple tree. *Acta Hort.* 903:733-742.

Robinson, T. L. and A. N. Lakso. 2011. Predicting chemical thinning response with a carbohydrate model. *Acta Hort.* 903:743-750.

Wolfe D., J. Comstock, A. Lakso, L. Chase, W. Fry, C. Petzoldt. 2011. Agriculture (Chapter 7). IN: Rosenzweig C., W. Solecki, A. DeGaetano, S. Hassol, P. Grabhorn, M. O'Grady (eds.). Integrated Assessment for Effective Climate Change Adaptation Strategies for New York State. New York State Energy Research and Development Authority (NYSERDA), 17 Columbia Circle, Albany, NY 12203.  
[www.nyserda.org/programs/environment/emep/home.asp](http://www.nyserda.org/programs/environment/emep/home.asp).

Robinson, T. L. and A. N. Lakso. 2011. Advances in predicting chemical thinning response of apple using a carbohydrate model. *NY Fruit Quarterly* 19(1):15-20.

## 2012

Centinari, M., S. Poni, D.S. Intrigliolo, D. Dragoni and A.N. Lakso. 2011. Cover crop evapotranspiration in a northeastern United States Concord (*Vitis labruscana*) vineyard. *Austral. J. Grape Wine Res.* 18:73–79, 2012.

Martinson, T.E., A. Lakso, and T. Bates. 2012. GRAPES 101. Bud Fruitfulness and Yield. Appellation Cornell, No. 10, May 2012  
<http://www.cals.cornell.edu/cals/grapesandwine/appellation-cornell/issue-10/grapes-101-bud-fruitfulness.cfm>

Robinson, T.L., A.N. Lakso and S.A. Hoying. 2012 Advances in predicting chemical thinner response of apple using a MaluSim carbon balance model. Acta Hort. 932: 223-229.

Lakso, A.N. 2014. Comparing water use efficiency of apples and grapes – physiological and morphological aspects. Acta Hort 1038:67-72.

A. Lakso, and D. Eissenstat. 2012. Fifteen years of vine root growth studies in Concords. Appellation Cornell, No. 12, November, 2012,  
(<http://grapesandwine.cals.cornell.edu/appellation-cornell/issue-12/index.cfm>)

## 2013

Lakso. A. N. 2013. Untangling the concepts of vine size, capacity, crop level, vigor, and vine balance. Grapes 101 in Appellation Cornell, No. 13, March 2013.  
(<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/issue-13/vine-size.cfm>).

Bates, T.R. , T.E. Martinson, L. Cheng and A.N. Lakso. 2013. Lessons from the big dig: dry matter, nitrogen uptake and fertilizer efficiency. Grapes 101 Grapes 101 in Appellation Cornell, No. 14, May 2013.  
(<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/issue-14/big-dig.cfm>)

Lakso, A.N. and M.C. Goffinet. 2013. Apple Fruit Growth. NY Fruit Quarterly, Vol. 21, No.1 pp 11-14.

Robinson, T., A. Lakso, D. Greene and S. Hoying. Precision Crop Load Management. NY Fruit Quarterly, Vol. 21, No.2: pp. 3-9.

Robinson, A. Lakso and L. Dominguez. 2013. Precision Irrigation Management. NY Fruit Quarterly, Vol. 21, No. 2, pp. 17-19.

Greene, D.W., A.N. Lakso and T.L. Robinson and P. Schwallier. 2013. Development of a Fruitlet Growth Model to Predict Thinner Response on Apples. HortScience 48(5):584–587.

Greene, D.W., A.N. Lakso 2013. Prediction of Initial Set and the Thinning Response to Postbloom Chemical Thinner on Apples. Intl J. Fruit Sci. 13:430–440.

Bartomeus, N., M. Park, B.N. Danforth, J. Gibbs, A.N. Lakso and R. Winfree. 2013. Biodiversity as an insurance against plant-pollinator phenological mismatching. *Ecology Letters* 16:1331-1338 DOI: 10.1111/ele.12170 (online 22August 2013).

Coniberti, A., V. Ferrari, M. Garcia Petillo, A.N. Lakso, E. Boido, E. Dellecassa, E. Disegna. 2013. Interactions of under-trellis cover crops and training systems to achieve vine balance in a temperate humid climate. Procs. GiESCO 2013, Porto, Portugal, pp. 468-483.

Intrigliolo, D.S., T.A. Abd El-Mageed, M.A. Abdelfatah, H. Medrano, and A.N. Lakso. 2013. Improving vine performance by modifying daily light interception patterns in vertically shoot positioned grapevines. Submitted to *Acta Hort.* (2013 symposium on grapevine physiology and biotechnology).

Lakso, A. N. 2013. Innovations in Fruit Research – From Virtual Trees to Microsensors. Proc. 15<sup>th</sup> Mexican Hort. Congress, Puebla, Mexico (in press).

## 2014

Pagay, V., M. Santiago, D.A. Sessoms, E.J. Huber, O. Vincent, A. Pharkya, T.N. Corso, A.N. Lakso and A.D. Stroock. 2014. A microtensiometer capable of measuring water potentials below -10 MPa. *Lab Chip* 14, 2806-2817 DOI: 10.1039/C4LC00342J

Lakso, A.N. 2014. Comparing water use efficiency of apples and grapes – physiological and morphological aspects. *Acta Hort* 1038:67-72.

Lakso, A.N. and T.L. Robinson. 2014. Integrating Physiological Models in Applied Fruit Crop Research. *Acta Hort* 1058:285-290.

## 2015

Doerflinger, F. and A.N. Lakso. 2015. Adjusting the MaluSim Apple Tree Model for the Gala Variety. *Acta Hort.* 1068:267-272.

Shaposhnikova, O., A.T. DeGaetano, and A.N. Lakso. 2015. Modeling Landscapes and Climates for Vineyard Site Selection in Two Marginal Climates. *Acta Hort.* 1068:141-146.

Lakso, A.N. and T.L. Robinson. 2015. Decision Support for Apple Thinning Based on Carbon Balance Modeling. *Acta Hort* 1068:235-242.

Neumann, L., P. Braun and A.N. Lakso. 2015. Adapting the MaluSim Model to Mid-European Growing Systems. *Acta Hort* 1068:221-226.

Tozzini L. J.A. Flore and Alan N. Lakso. 2015. Estimating The Carbon Footprint Of Michigan Apple and Cherry Trees - Lifetime Dry Matter Accumulation. *Acta Hort* 1068:85-90.

## **2016**

Pagay, V., V. Zufferey B and A.N. Lakso. 2016. The influence of water stress on grapevine (*Vitis vinifera L.*) shoots in a cool, humid climate: growth, gas exchange and hydraulics. *Func. Plant Biol.* 43(9) 827-837 <http://dx.doi.org/10.1071/FP16017>

Martinson, T.E. and A.N. Lakso. 2016. Grapes 101 - How Grapevines Respond to Water Stress. in Appellation Cornell, No. 26, August 2016.

<http://grapesandwine.cals.cornell.edu/newsletters/appellation-cornell/2016-newsletters/issue-26-august-2016/grapes-101>

Radville, L., T.L. Bauerle, L.H. Comas, K.A. Marchetto, A.N. Lakso, D.R. Smart, R.M. Dunst and D.M. Eissenstat. 2016. Limited linkages of aboveground and belowground phenology: A study in grape. *Amer. J. Botany* 103(11):1897-1911.

Robinson, T.L., A.N. Lakso, D.W. Greene, G. Reginato and A. de R. Rufato. 2016. Managing fruit abscission in apple. *Acta Hort* 1119:1-14.

## **2017**

Robinson, T.L., A.N. Lakso, J. Lordan, P. Francescatto, D. Dragoni, A.T. DeGaetano, K. Eggleston. 2017. Precision irrigation management of apple with an apple-specific Penman-Monteith model. *Acta Hort*. 1150:245-250.

Lakso, A.N. and M.C. Goffinet. 2017. ‘Advances in understanding apple fruit development’, Pp.103-133 in. K. Evans, *Achieving sustainable cultivation of apples*, Burleigh Dodds Science Publishing, Cambridge, United Kingdom (ISBN: 978 78676 032 6; [www.bdspublishing.com](http://www.bdspublishing.com))

Goffinet, M.C. and Lakso, A.N. 2017. Positional effects on retention potential within the spur of apple (*Malus × domestica*) with and without competition with other fruit on the spur. *Acta Hort*. 1177:169-176.

A. Coniberti, V. Ferrari, E. Disegna, A.N. Lakso and M. García Petillo . 2017. Interactions of under-trellis cover crops and planting density to achieve vine balance in a temperate humid climate. *Acta Hort* 1177:339-348.

A-L.Krasniqi, M.M. Blanke, A. Kunz, L. Damerow, A.N. Lakso and M. Meland. 2017. Alternate Bearing in Fruit Tree Crops- Past, Present and Future. *Acta Hort* 1177:241-248.

Lakso, A.N. 2017 Perspectives on Physiology in Support of Fruit Production and Future Opportunities – Lessons from 40 Years of Fruit Research. *Acta Hort* 1177:1-12.

Zhou, C., Liu, B., Lakso, A.N., Robinson, T.L. and Gan, S. 2017. Identification of genes associated with BA-induced apple fruitlet abscission. *Acta Hortic*.1177: 249-258.

Robinson, T.L., Lakso, A.N. and Greene, D.W. 2017. Precision crop load management: the practical implementation of physiological models. *Acta Hort.* 1177:381-390.

Miras-Avalos, J.M., Uriarte, D., Lakso, A.N. and Intrigliolo, D.S. 2017. Modeling ‘Tempranillo’ grapevines with “VitiSim”, a simplified carbon balance model: understanding water status effects. *Acta Hort.* 1177:391-397.

## 2018

Coniberti, A., V. Ferrari, E. Disegna, M. García Petillo and A.N. Lakso. 2018. Under-trellis cover crop and planting density to achieve vine balance in a humid climate. *Sci. Hort.* 227:65-74.

Coniberti, A., V. Ferrari, E. Disegna, E. Dellacasa and A.N. Lakso. 2018. Under-trellis cover crop and deficit irrigation to regulate water availability and enhance Tannat wine sensory attributes in a humid climate. *Sci. Hort.* 235:244-252.

Mirás-Avalos, J.M., D. Uriarte, A.N. Lakso and D.S. Intrigliolo. 2018. Modeling grapevine performance with ‘VitiSim’, a weather-based carbon balance model: Water status and climate change scenarios. *Scientia Horticulturae* 240:561–571.

Coniberti, A., V. Ferrari, E. Disegna, M. Garcia Petillo and A.N. Lakso. 2018. Complete vineyard floor cover crop to reduce grapevine susceptibility to bunch rot. *Eur. J. Agron.* 99:167–176.

Intrigliolo, D.S., J.M. Mirás-Avalos, and A.N. Lakso. 2018. Effects of post-bloom low light and girdling on fruit set of *Vitis vinifera* (L.) cv. ‘Riesling’ and *Vitis labruscana* (L.) cv. ‘Concord’. *Oeno One* 52(4):1-8.

## 2019

Lordan, J., G.H. Reginato, A.N. Lakso, P. Francescatto and T.L. Robinson. 2019. Natural fruitlet abscission as related to apple tree carbon balance estimated with the MaluSim model. *Sci. Horticulturae* 247:296-309.

Izzo, R.R., A.N. Lakso, E.D. Marcellus, T.D. Bauch, N.G. Raqueño, J. van Aardt. 2019. An initial analysis of real-time sUAS-based detection of grapevine water status in the Finger Lakes wine country of upstate New York. *Proc. SPIE Conf.* \_\_\_\_\_?

Ferlito, F., G. Distefano, A. Gentile, M. Allegra<sup>1</sup>, A.N. Lakso, E. Nicolosi. 2019. Scion-rootstock interactions influence growth and behaviour of grapevine’s root system in a heavy clay soil. *Australian J. Grape Wine Research* (published online: doi: 10.1111/ajgw.12415).

