

▶ Chris Cavalaris

Date of birth: June 1969

Nationality: Greek

Family condition: Married, 2 children

Address: Gioni str PO box 1267, 38500 Volos, Greece

Telephone: +30 – 6947 691520,

E-mail: chkaval@agr.uth.gr

Education

- ▶ Ph.D. (2004)
University of Thessaly, Dept of Crop Sciences & Rural Environment
Doctoral project: “Study of alternative methods of soil tillage in sugarbeet, corn and cotton rotations”. Supervisor: Professor Th.A. Gemtos
- ▶ Total Quality Management (1996)
250 hours seminar funded by the National Secretariat of Civil Education
- ▶ BSc in Agricultural Sciences (1994)
University of Thessaly, Dept of Crop and Animal Production
Grade: 6.95/10

Employment

- ▶ Lecturer (2014 – Today)
University of Thessaly, School of Agricultural Sciences
Dept of Crop Sciences & Rural Environment
Courses: Agricultural Mechanization, Agricultural Machinery Management.
- ▶ Full time Researcher (2002 – 2014).
University of Thessaly, School of Agricultural Sciences
Dept of Crop Sciences & Rural Environment
Research objects: Soil tillage, Agricultural machinery development, Crop biomass production – utilization, Robotics in Agriculture)
- ▶ Under contract Lecturer (2005 - 2010)
Technological Educational Institute of Larissa. School of Agricultural Technology, Dept of Biosystems Engineering

Courses: Farm machinery equipment, Power transmission chains, Statistics

- ▶ Farm Manager (2000 - 2001, 10 months)
Farm of University of Thessaly
Objective: Crop and equipment management of the Farm of the University
- ▶ Agronomist (1997 – 2000, 12 months)
Prefecture of Magnesia, Department of Agriculture
Objective: Protection of Olive trees from *Dacus oleae*
- ▶ Agronomist (1995, 5 months)
National Tobacco Organization, Dept of East Macedonia & Thrace
Objective: Farmer consultant for Tobacco production

Projects

- ▶ Project title: Sustainable grains production
Occupation: Local supervisor - Researcher (2014-15)
Funded by: Barilla Food Company
- ▶ Project title: Environmental friendly biomass production
Occupation: Researcher (2012-15, still running)
Funded by: Hellenic Ministry of Education & the European Social Fund
- ▶ Project title: Integrated robotic and software platform as a support system for farm level business decisions "ROBOFARM"
Occupation: Researcher (2011-12)
Funded by: Hellenic Ministry of Education, National Strategic Reference Framework 2007-13
- ▶ Project title: Anaerobic digestion of organic agro-industrial products with simultaneous production of biogas and bio-fertilizer
Occupation: Researcher (2011)
Funded by: ELINOIL, Hellenic Petroleum Company S.A.
- ▶ Project title: Biofuel production in the region of Thessaly
Occupation: Researcher (2006-2008)
Funded by: Hellenic Ministry of Development, National Strategic Reference Framework 2007-13
- ▶ Project title: Estimation of biomass production in the province of Larissa, Greece
Occupation: Researcher (2002)
Funded by: Hellenic Ministry of Education & the Research Committee of the TEI of Larissa
- ▶ Project title: Supplementary education courses: Health and safety of work in agriculture
Occupation: Lecturer (1998-1999)
Funded by: Hellenic Ministry of Education
- ▶ Project title: Evaluation of alternative methods of soil tillage in cotton production in order to reduce costs and conserve the environment.

Occupation: Full-time Researcher (1998)
Funded by: General Secretariat for Research and Technology, Greece

IT skills

Advanced skills in:

- ▶ Experiment establishment
- ▶ Soil and crop measurements
- ▶ Machinery energy consumption, energy balances
- ▶ Sensor implementation
- ▶ Data manipulation
- ▶ Statistic packages (Mstat, StatGraphics, SPSS),
- ▶ Microsoft Office 2010
- ▶ DaisyLab software
- ▶ Driver license for tractors

Teaching

- ▶ Farm mechanization
- ▶ Farm management
- ▶ Statistics

Languages

- ▶ Greek: Mother tongue
- ▶ English: Certificate of Proficiency in English, Michigan University

Member of scientific societies

- ▶ Greek Society of Agricultural Engineering
- ▶ European Society of Agricultural Engineering

Scholarships

- ▶ Ph.D., 3 year scholarship from the Hellenic State Scholarships Foundation (IKY)

Other

- ▶ Organizing committee of the 6th European Conference of Precision Agriculture, Skiathos 2007
- ▶ Organizing committee of the 5th National Conference of Agricultural Mechanization, Larissa 2007
- ▶ Organizing committee of the 8th National Conference of Agricultural Mechanization, Volos 2013
- ▶ Lectures with theme “Farm mechanization and new technologies in agriculture” Karditsa 2013

Publications

International journal publications: (7)

- ▶ Galanopoulou S., Gemtos T.A., and Cavalaris C. (1998) Wheat establishment after cotton with minimal tillage. *European Journal of Agronomy*. vol 8 (1998) 137-147.
- ▶ Cavalaris C.C and Gemtos T.A. (2002). Evaluation of four conservation tillage methods in the sugar beet crop. *International Commission of Agricultural Engineering (CIGR). E-Journal, Vol IV.* www.ucd.ie/cigr/
- ▶ Fountas S., Paraforos D., Cavalaris C., Karamoutis C. Gemtos T.A. Nawaf Abu Kalaf and Tagarakis A. (2013). A five-point penetrometer with GPS for measuring soil compaction variability. *Computers and Electronics in Agriculture* 96 (2013) 109–116
- ▶ Gemtos T.A., Cavalaris C. , Karamoutis C and Tagarakis A. (2013). Energy analysis of three energy crops in Greece. *Agricultural Engineering International: CIGR Journal, Vol 15(4)* p52-66.
- ▶ Cavalaris, C., Karamoutis C., and T.A. Gemtos (2014). Crop rotations and soil tillage interactions for biomass production. *Journal of Agricultural Machinery Science* 101(1), p1-6
- ▶ Gemtos T.A., Dolmes S., Mola K., Cavalaris, C. and Karamoutis C. (2014). Sweet sorghum cropping practices to improve energy production and balance. *Journal of Agricultural Machinery Science* 101(1), p7-12
- ▶ Fountas S., C.G. Sorensen, Z. Tsiropoulos, C. Cavalaris, V. Liakos c and T. Gemtos (2015) Farm machinery management information system. *Computers and Electronics in Agriculture* 110 (2015) 131–138

▶

International conference publications: (14)

- ▶ Cavalaris C. and Gemtos T.A. (1998). Soil tillage and rotation effect in sugar beet crop. *International Conference on Agricultural Engineering*. Oslo 1998.
- ▶ Cavalaris C. and Gemtos T.A. (1998). Soil tillage effect in cotton crop. *2nd International*

Conference on Cotton Crop. Athens 1998. 377-387

- ▶ Gemtos T.A. and Cavalaris C.K. (2001). Soil tillage effect in the sugar beet crop. I World Congress on Conservation Agriculture. Madrid 1-5 Oct. 2001. p 539- 43.
- ▶ Gemtos T.A., Cavalaris C., Demis V., Pateras D. and Tsidari Chr. (2002). Effect of changing tillage practices after four years of continuous reduced tillage. ASAE Annual International Meeting / CIGR World Congress. July 2002, Chicago Paper No 021135.
- ▶ Papathanasiou I., Cavalaris C., Karamoutis C. and Gemtos (2002). Design, construction and testing of an instrumented tractor to measure forces on agricultural implements and energy consumption during field work. Proceedings of the 1st Conference of Hellenic Association of ICT in Agriculture (HAICTA) Athens 2002. pp 144-53.
- ▶ Cavalaris C.C. and T.A. Gemtos (2004). Evaluation of tillage efficiency and energy requirements for five methods of soil preparation in the sugar beet crop. Proceedings of the Union of Scientists 2nd Conference, Energy Efficiency and Agricultural Engineering, Rousse 2004 pp 110-16.
- ▶ Cavalaris C.C. and T.A. Gemtos (2004). Evaluation of four reduced tillage methods with different rotations. In: Conservation Tillage and Sustainable Agriculture, Proceedings of the IV Session of the 2004-CIGR International Conference, Beijing. Chinese Academy of Agricultural Mechanization Sciences. pp 97-101.
- ▶ Markinos A., Gemtos T.A., Kavalaris C. and Karamoutis C. (2005). Soil resistance to ploughing spatial variability and their effects to cotton seed yield maps. ITAFE '05, International Congress on Information Technology in Agriculture, Food and Environment. Adana Turkey 2005
- ▶ Gemtos T.A, Cavalaris C.C. and Karamoutis C. (2006). Evaluation of a strip tillage method for cotton production in Greece. Eurageng 2006 World Congress Bonn.
- ▶ Cavalaris, C., C. Karamoutis, S. Fountas and T.A. Gemtos. (2008). Sunflower oil energy budget for in-farm production under four tillage systems. Eurageng 2008 World Congress Crete.
- ▶ Fountas S., Sorensen, C., Tsiropoulos Z., Cavalaris, C., Liakos, V., Vatsanidou A., Gemtos T.A. and Blackmore S. (2012). Farm machinery management information system. CIGR-AgEng 2012, Valencia, Spain, July 8-12, in CD
- ▶ Cavalaris, C., Karamoutis, C., Gemtos T.A. and S. Fountas (2013). Fossil Fuel Deficit – Conservation tillage and on farm biofuel production to cope with the problem. Proceedings of the I.C. FaBE. International Conference on Food and Biosystems Engineering, Skiathos Greece 2013. [vol. 1] ISBN: 978-960-9510-10-3, p279-89.
- ▶ Dolmes, S., K. Mola, C.C. Cavalaris, C. Karamoutis, and T.A. Gemtos (2014). Sweet and fiber sorghum cropping practices to improve energy production with friendly to the environment practices. 26th Annual Meeting of the Association for the Advancement of Industrial Crops & FIBRA and OPTIMA Workshops. Athens 2014 p.70
- ▶ Gemtos T.A., C.C. Cavalaris, C. Karamoutis, and S. Giovanoudis. (2014). Energy analysis for biomass production under different soil tillage and crop rotations. 26th Annual Meeting of the Association for the Advancement of Industrial Crops & FIBRA and OPTIMA Workshops. Athens 2014 p.71

National conference publications: (27)

- ▶ Cavalaris C., Gemtos T.A. and Georgiou Ch. (1998). Use of low inputs methods for soil tillage in

corn. Proceedings of the 1st National Conference of Agricultural Mechanization, Athens 1998 p 377-387 (In Greek). <http://www.egme.gr/>

- ▶ Cavalaris C., Gemtos T.A., Papathanasiou I., Karamoutis C. and Goulas C. (2001). Sugar beet crop energy inputs with four reduced soil tillage methods. Proceedings of the 2nd National Conference of Agricultural Mechanization, Volos 2001 pp 229-236 (In Greek). <http://www.egme.gr/>
- ▶ Papathanasiou I., Cavalaris C., Karamoutis C. and Gemtos T.A. (2001). Designation of a heavy cultivator in order to optimize the field performance. 2nd National Conference of Agricultural Mechanization, Volos 2001 p 489-496 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Goubiotis P.N. and Gemtos T.A. (2002). Perspectives of energy savings during the application of reduced tillage methods in cotton crop. Proceedings of the 7th National Conference of IHT "Mild energy forms" Patra 2002. (In Greek).
- ▶ Papathanasiou I., Karamoutis C., Cavalaris C., Papamichail D. and T.A Gemtos (2003). Cotton growth under cultivation with a Subsoiler with shallower tines. Proceedings of the 3^d National Conference of Agricultural Mechanization, Thessaloniki 2003 p 98-105 (In Greek). <http://www.egme.gr/>
- ▶ Papathanasiou I., Karamoutis C., Cavalaris C., and T.A Gemtos (2003). Use of shallow tines to minimize the energy consumption of a subsoiler. Proceedings of the 3^d National Conference of Agricultural Mechanization, Thessaloniki 2003 p 106-113 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Karamoutis C., Papathasiou I. and T.A. Gemtos (2003). Perspectives for energy conservation with reduced tillage application in the winter wheat crop. Proceedings of the 3^d National Conference of Agricultural Mechanization, Thessaloniki 2003 p 484-491 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C. and T.A. Gemtos (2003). Energy inputs and outputs in the sugar beet crop for five methods of soil tillage. Proceedings of the 3^d National Conference of Agricultural Mechanization, Thessaloniki 2003 p 492-499 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Mygdakos E. and T.A. Gemtos (2005). Potential cost savings in the cotton crop via reduced tillage application. Proceedings of the 4th National Conference of Agricultural Mechanization, Athens 2005 p107-116 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Karamoutis C., Papamichail D. and T.A. Gemtos (2005). Soil tillage effect on weed infestation in a sugar beet crop. Proceedings of the 4th National Conference of Agricultural Mechanization, Athens 2005 p151-158 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Alexandrou A. and T.A. Gemtos (2005). Soil tillage effect on the seedbed temperature. Proceedings of the 4th National Conference of Agricultural Mechanization, Athens 2005 p142-150 (In Greek). <http://www.egme.gr/>
- ▶ Gemtos T.A., Cavalaris C. and Karamoutis C. (2005). Design, construction and evaluation of a strip tillage implement for the cotton crop. Proceedings of the 4th National Conference of Agricultural Mechanization, Athens 2005 p176-184 (In Greek). <http://www.egme.gr/>
- ▶ Aggelopoulou A., Cavalaris C., Karamoutis C., Vavoulidou C. and T.A. Gemtos (2005). Longterm effects of five tillage methods in soil and sugar beet crop. Proceedings of the 4th National Conference of Agricultural Mechanization, Athens 2005 125-133 (In Greek) <http://www.egme.gr/>
- ▶ Iosifidis A.I., Tsatsarelis K.A., Gemtos T.A., Gialamas T.A., Cavalaris C. and Karamoutis C. (2005). Laboratory and farm measurements of factors affecting tractor draft. Book of Abstracts of the 4th National Conference of Agricultural Mechanization, Athens 2005 p13 (In Greek, not included in the proceedings).
- ▶ Cavalaris C., Karamoutis C., Aggelopoulou, A. and T.A. Gemtos (2007). Effect of changing tillage on soil, plants and yield. Proceedings of the 5th National Conference of Agricultural Mechanization, Larissa 2007 p127-134 (In Greek). <http://www.egme.gr/>

- ▶ Karamoutis, C., Cavalaris C., Paraforos D., Papadopoulou O., Kolipetsas K., and T.A. Gemtos (2007). Design, construction and testing of a hydraulically powered penetrometer. Proceedings of the 5th National Conference of Agricultural Mechanization, Larissa 2007 (In Greek). <http://www.egme.gr/>
- ▶ Tsianos N., Gemtos T.A., Cavalaris C., and C. Karamoutis (2007). Soil tillage effect on two varieties of sunflower in central Greece. Proceedings of the 5th National Conference of Agricultural Mechanization, Larissa 2007 p716-722 (In Greek).p135-142 <http://www.egme.gr/>
- ▶ Cavalaris C., Karamoutis C., Kalavryotou P. and T.A. Gemtos (2007). Sunflower biodiesel production with reduced tillage. Estimation of energy budgets. Proceedings of the 5th National Conference of Agricultural Mechanization, Larissa 2007 p738-45 (In Greek). <http://www.egme.gr/>
- ▶ Tagarakis A., Karamoutis C., Cavalaris C., Mygdakos E. and T.A. Gemtos (2009). Economic analysis of three energy crops for biofuel production. Proceedings of the 6th National Conference of Agricultural Mechanization, Thessaloniki 2009 p399-406 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris, C., Karamoutis C., and T.A. Gemtos (2009). Effect of cropping practices of soil tillage, sowing rate and weed control on a sunflower crop. Proceedings of the 6th National Conference of Agricultural Mechanization, Thessaloniki 2009 p521-530 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., Karamoutis C., Tagarakis A. and T.A. Gemtos (2009). Energy balances for three energy crops in Thessaly. Proceedings of the 6th National Conference of Agricultural Mechanization, Thessaloniki 2009 p691-698 (In Greek). <http://www.egme.gr/>
- ▶ Gemtos T.A., Cavalaris C., Karamoutris C. and Fountas S. (2009). Adaptation of three energy crops in Thessaly (2009). Proceedings of the 6th National Conference of Agricultural Mechanization, Thessaloniki 2009 p699-706 (In Greek). <http://www.egme.gr/>
- ▶ Gemtos T.A., Tagarakis A.,Karamoutis C., Cavalaris C., and Fountas S. (2011).Direct use of vegetable oils to diesel engines. Proceedings of the 7th National Conference of Agricultural Mechanization, Athens 2011 (In Greek). <http://www.egme.gr/>
- ▶ Cavalaris C., C. Karamoutis, D. Anagnostopoulos, S. Fountas and T.A. Gemtos (2013). Systematic study of time variation of soil penetration resistance on a long term tillage experiment. Proceedings of the 8^d National Conference of Agricultural Mechanization, Volos 2013 p 7-11 (In Greek). <http://www.egme.gr/>
- ▶ Anagnostopoulos D.V., Sp. Fountas, Cavalaris C., T.A. Gemtos. (2013). The effects of repair and maintenance cost on the total function cost of use of a tractor. Proceedings of the 8^d National Conference of Agricultural Mechanization, Volos 2013 p 17-21 (In Greek). <http://www.egme.gr/>
- ▶ Samouris E., D. Stafyla, P. Manta, Sp. Fountas, X. Kavalaris, A.Gemtos (2013). Cost and production estimation of cereals and cotton in Thessaly. . Proceedings of the 8^d National Conference of Agricultural Mechanization, Volos 2013 p 22-25 (In Greek). <http://www.egme.gr/>
- ▶ Gemtos T.A, C. Cavalaris, C. Karamoutis, S. Fountas (2013). Soil organic matter dynamics in a long term tillage experiment. Proceedings of the 8^d National Conference of Agricultural Mechanization, Volos 2013 p 86-90 (In Greek). <http://www.egme.gr/>

National or international publications without crisis (4)

- ▶ Cavalaris C.C., Gemtos T.A. and Alexandrou A. (2003). The influence of various cultivation techniques on soil seedbed temperature, ASABE paper No 031019, St. Joseph, Michigan.
- ▶ Fountas S., Bouloulis K., Paganis P., Gemtos T.A, Cavalaris C., Nanos G., Paraskevolopoulos A. and Galanis M. (2009). Weed Control on Olive Tree Plantations using Soil Cultivation, Mechanical and Chemical Control. Application of Precision Agriculture Practices. Agriculture and Livestock 1/2009, p34-37. (in Greek).
- ▶ Gemtos T.A., Fountas S., Cavalaris C., and B. Fytilisç (2012). Precision Agriculture applications in

winter wheat in Thessaly. Agriculture and Livestock 6/2012. p70-73 (in Greek)

- ▶ Gemtos T.A., Cavalaris C., Karamoutis C. and S. Fountas (2012). Adaptation of rapeseed (*Brassica napus* L.) in Thessaly. Agriculture and Livestock 6/2012. p98-102. (in Greek)