Applied Horticultural Research Capability and Track Record

APPLIED HORTICULTURAL RESEARCH ABN 58 134 308 982
Suite 340, Biomedical Building, 1 Central Avenue, Australian Technology Park, Eveleigh NSW 2015
info@ahr.com.au | **+612 8627 1040** | **www.ahr.com.au**

AHR strengths

Applied Horticultural Research is a multi-disciplinary team of skilled research and communication professionals.

Our research, communications and training supports innovation and sustainability in the horticultural supply chain — from farm to consumer. We work closely with growers, processors and support organisations in Australia and overseas to deliver better products to consumers and returns to growers.

AHR has strong skills in science-based product and systems development, balanced with effective communication skills. The result has been a solid track record of helping growers to meet consumer demands and increase their profits. We manage or lead a large number of horticultural research projects that are strongly focused on vegetable crop production systems. AHR works with other major organisations in the horticultural field.

Organisation capability of AHR

AHR excels in delivering research outcomes to the Australian rural industry and communicating effectively with growers about how to improve the sustainability and profitability of their businesses.

Over the past 25 years, AHR has managed more than 90 major research projects with a value of more than $30 million. Many of these have been Horticulture Innovation Australia (formerly HAL)-funded research projects for the Australian horticulture industry, the Australian Government Department of Agriculture (DAWE), Australian Centre for International Agricultural Research (ACIAR) and private research and consulting.

Please refer to the AHR website www.ahr.com.au for more information about our projects.

AHR office and laboratories are located at 1 Central Ave Eveleigh, NSW 2015.

The company currently has staff members based in Sydney, SE Qld, Cowra and Melbourne. We also have a network of consultants who work for AHR on a contract basis as required.

AHR capabilities:

Research and development

- Field and laboratory based crop research
- Consumer research

Rural development and communications

- Industry communications and magazines
- Video production
- Technical and consumer-oriented copy writing
- Field days and workshops
- Best practice guides

Training

- Master classes
- Webinars
- Tailored training programs

Scientific writing, research papers and reports

Technical specialties

Agronomy

- Vegetable crop production
- Crop physiology
- Sustainable agricultural systems
- Product improvements

Soil health and crop nutrition

- Reduced tillage cropping systems
- Cover crops
- Nutrition research

Irrigation and water management

Postharvest physiology

- Bringing healthier, more appealing products to consumers

Climate change and variability

- Managing power and water for greater profitability and sustainability

Pest and disease management

- Pest and disease guides
- Training
- Research
- Consumer research

Websites

www.ahr.com.au www.soilwealth.com.au www.potatolink.com.au

AHR Staff

Professor Gordon Rogers - Managing director B.App.Sc. (Hons), Dip Ed, PhD,

Prof Gordon Rogers is Managing director of Applied Horticultural Research and Adjunct Professor of Horticulture at the University of Sydney. Dr Rogers has 30 years' experience in research, development and extension in Australia and internationally, with expertise in soil health, sustainable production systems, protected cropping, greenhouse gas emissions and climate change physiology, phytonutrients in vegetable and fruit crops, and food production systems in developing countries.

Dr Rogers has managed or led more than 80 major research projects with a total value of more than $30 million. Many of these have been Horticulture Innovation Australia (formerly HAL)-funded research projects for the Australian horticulture industry, but also Australian DAFF, ACIAR and Australian Research Council projects.

Dr Rogers has a PhD in Climate Change Physiology. He was co-convener of the international symposium on Horticulture in Developing Countries & World Food Production at the 29th International Horticultural Congress, Brisbane, August 2014 and has two International Society for Horticultural Science (ISHS) Medals.

Address: 1 Central Ave, Australian Technology Park, Eveleigh, NSW 2015.

E: gordon@ahr.com.au **P:** 02 8627 1040. **M:** 0418 517 777; **web:** www.ahr.com.au

Dr Jenny Ekman - Postharvest specialist, food safety and science writer B.Hort.Sci. (Hons), PhD

Dr Ekman has more than 15 years' horticultural research experience in Australia, USA and the Philippines. She has led research projects on food safety, fruit-fly management, broccoli, chestnuts and vegetables, and developed a definitive postharvest manual and app for the Australian vegetable industry. Jenny has also worked extensively in fruit physiology, completing projects funded by a range of agencies . Dr Ekman has excellent writing and communication skills and is an effective translator of scientific language into information readily understood and used by growers.

E: jenny.ekman@ahr.com.au **P: P:** 02 8627 1040 **M:** 0407 384 285

Adam Goldwater – General Manager B.App.SC. (Hons), M.Env.Sc

Mr Goldwater is a research horticulturist with a commercial background in postharvest and agronomy, and enjoys applying research to improve commercial practices. He has a B.App.Sc. (Hons) from University of New Zealand – Massey and an MSc in Environmental Science. He worked in the New Zealand kiwifruit industry after which he moved to Sydney and spent time in the fresh-produce industry, running a fruit ripening program for avocados, kiwifruit and mangoes. Mr Goldwater works on projects including Avocado quality, food safety, agronomy and postharvest.

E: adam.goldwater@ahr.com.au **P:** 02 8627 1040 **M:** 0466 080 693

Liam Southam-Rogers - Chief financial officer and Environmental Scientist BSc (Environment), BCom (Finance)

Since graduating from the University of Wollongong Liam has concentrated on sustainability projects such as smart farming, on-farm power generation, integrating sustainable soil health practices into a commercial vegetable farm, reducing nitrous oxide emissions in key perennial tree crop industries, and the impact of subsurface drip irrigation and soil health on greenhouse gas emissions and productivity of processing tomatoes..

E: liam@ahr.com.au **P:** 02 8627 1040. **M:**0418 235 842

Dr Kelvin Montagu Research Scientist B.Hort.Sci. (Hons), PhD

Dr Montagu has a PhD in Soil–Plant Interface. He managed the CRC for Irrigation and has worked closely with the Climate Change Research Strategy for Primary Industries (CC*RSPI*) where he developed climate-change policy for various industries. He co-led a review of climate change for the vegetable industry, and earlier in his career worked for NSW State Forests as a key member of the National Greenhouse Strategy team. Dr Montagu manages cover crop and technology projects for AHR and is closely involved in the Soil Wealth extension project.

E: kelvin.montagu@gmail.com **M:**0421 138 019

Marc Hinderager - Agronomist BSc.Bus, Cert Crop Advisor (USA),

Mr Hinderager is based in Cowra, in the Central West region of NSW. He has 20-plus years of experience in potato crops in Iowa (US), and more recently, with vegetable and grains crops in NSW. Mr Hinderager was an agronomist with Elders for five years before joining the AHR team to work on Soil Wealth and Integrated Crop Protection – extension and research.

E: marc@ahr.com.au **M:** 0409 082 012

Dr Pieter Van Nieuwenhuyse - Research Scientist B Sc Agr (Hons), PhD

A passionate, driven agronomist (PhD), with entrepreneurial acumen and 10 years' agri/horticultural work experience. Involved in Research, Development & Extension (RD&E). Pieter brings commercial relevance combined with scientific knowledge to influence the supply chain. He also has strong people management skills and ability to build/maintain long-lasting professional relationships.

Dr Van Nieuwenhuyse's interests include: agriculture/horticulture (vegetables, fruit, oilseed, herbs), agronomy, crop protection (IPM), plant nutrition, end-to-end value chain (from paddock to plate), production/processing/logistics.
E: pieter@ahr.com.au **P:** 02 8627 1040 **M:** 0433 889 244

Henry Hyde - Research Scientist B Ag, M.Ag.Sc

Mr Hyde is a recent graduate of The University of Melbourne with a Master's degree in Agricultural Science. He is currently involved in projects related to the remote monitoring of horticulture in vulnerable coastal ecosystems and improving the sustainability of mushroom production. He is skilled in communication and scientific writing. His interests lie in remote sensing, precision agriculture and supply chain improvement.

E: henry.hyde@ahr.com.au **P:** 02 8627 1040 **M:** 0431306877

Dr Naomi Diplock - Research scientist BAppSc (Hons), PhD in plant pathology

Dr Diplock is a plant pathologist with experience in plant disease diagnostics and dieback phenomena. She is passionate about helping to solve the pressing issues facing agricultural production globally. She enjoys working in diverse environments, from the cattle stations of the Australian outback, the jungles of south east Asia, and the remote villages of the Himalayas.

Naomi has 15 years research and university teaching experience in plant pathology and weed science. Her main focus of research has been investigating parkinsonia dieback, while more recently she spent 2.5 years in Bhutan working with the National Mushroom Centre to improve production practices and develop a national standard for spawn production.

Dr Diplock has been awarded Smart Women Smart State Award and the Trailblazer Award for innovative research for her work in parkinsonia dieback.

E: naomi.diplock@ahr.com.au **P:** 02 8627 1040

Ryan Hall - B. Sci Ag (Hons), Research Scientist

Ryan is a recent graduate of the University of Sydney with a Bachelor of Science in Agriculture with Honours, specialising in horticulture.

An alumnus of the New Colombo Plan scholarship, Ryan has a keen interest in development agriculture and protected cropping. He has been involved in projects on avocado postharvest and capsicum disease. He is currently working on pathology and postharvest projects, with a focus on pastures, capsicums and mushrooms. Ryan has been nominated for the NSW Chris Russell Medal of Excellence 2021 for his Honours thesis on the internal rot of capsicum.

E: ryan.hall@ahr.com.au

Tim Kimpton - Research Scientist BAgrSc, Grad Dip Sci Journ

Tim works on crop protection, general agronomy in horticulture and agriculture. Recent projects Tim has worked on including: Avocado quality monitoring, nutrient benchmarking of Vic strawberries; monitoring greenhouse gas emissions in processing tomatoes; developing a broad based agronomy package for cultivating high anthocyanin (purple) carrots in Australia; data review on best practice management of lettuce anthracnose; and processing tomato variety evaluations.

E: phytogen@internode.on.net **M**: 424 000 562

Ms Kim Saville - Communications Specialist

Kim Saville is a communications specialist who helps AHR effectively communicate results to industry. Kim has extensive experience in business communications and support. Kim has excellent writing, communication and interpersonal skills. She played a major role in melding the 10 regional IDOs groups to function as part of a common group in VegNET phase one.

E: kim.saville@ahr.com.au **P**: 02 8627 1040 **M**: 0406 060 797

Ms Sharron Olivier - Media Producer and writer

Ms Olivier is an experienced journalist, editor, copywriter and video producer/director/script writer. She has more than 20 years' experience in making corporate and instructional videos and films. Sharron has powerful and effective writing and editing skills and the ability to unravel complex information and put it into an audio-visual format. She has a strong background in agribusiness communications and was print media team leader and video producer at Anvil Media (an award-winning rural and primary industry communications and marketing specialist) before joining AHR.

Contact: 1 Central Ave, Australian Technology Park, Eveleigh, NSW 2015.

E: sharron@ahr.com.au **M:** 0426 817 437

Lynn Christie Administration and business management

Ms Christie is the AHR business manager. She has managed the business and administration for AHR for the past 15 years.

E: lynn@ahr.com.au **P:** 02 8627 1040

Clients


Horticulture
Innovation
Australia


THE UNIVERSITY OF
SYDNEY


one
harvest


RMCG
Environment | Water | Agriculture
Communities | Policy | Economics


Stoller Australia
Unleashing The Power Of Plants


PREMIER
FRUITS GROUP

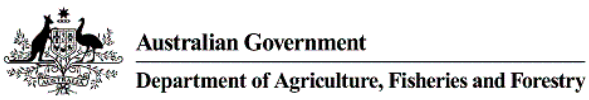

A.M.G.A.


Bundaberg
Fruit & Vegetable
Growers


Australian Government
Australian Centre for
International Agricultural Research


Australian Processing Tomato Research Council Inc.


NSW
GOVERNMENT
Department of
Primary Industries


Australian Government
Department of Agriculture, Fisheries and Forestry


CHESTNUTS
AUSTRALIA Inc.


BAYER


Australian Government
National
Landcare
Programme


driedfruits
australia

Current/Recent Research Projects

Agronomy / Soil management / Extension / Communications

- PT20000 PotatoLink Potato industry communications and extension project
- Melon industry Listeria project
- VG16068 Soil Wealth and Integrated Crop Protection – national extension program for the Australian vegetable industry
- PT20000 Australian Potato Industry Communication and Extension Project
- VG16068 Cover crops for the Australian vegetable Industry
- MU16004 Marsh Lawson Research Centre (Joint with USYD)
- VG15010 Soil Condition Management – Extension and Capacity Building
- MU17006 Mushroom compost biomarkers
- MU17004 Optimise nitrogen transformations in mushroom compost

Pest and disease

- VG17012 Capsicum internal rot
- VG15064 Brown Etch disease on pumpkins

Postharvest / Food safety / Health and nutrition

- MU9005 Mushroom whiteness review
- AV19003 Avocado quality monitoring - national program
- VG16042 Vegetable pathogen persistence
- MU16005 Mushroom Food Safety
- VG14062 Improving retail freshness of broccoli

Environmental

- ST19023 - Digital remote monitoring to improve horticultures environmental performance
- MU17008 Environmental in impacts of the Australian mushroom industry
- NSW EPA Recycled organics in vegetable cropping: This project is evaluating composted green waste (recycled organics) for use as a soil conditioner for the Australian vegetable industry
- NSW EPA Recycled organics as a replacement for mushroom casing soil.
- Strip tillage and cover crops. A winning combination for improving soil health and reducing nutrient runoff for Sydney, Bathurst and Cowra vegetable producers
- Strip tillage and cover crops. A winning combination for improving soil health and reducing nutrient runoff in Gippland, Vic.
- Strip tillage and cover crops. A winning combination for improving soil health and reducing nutrient runoff for Bundaberg, Qld.

International

- HORT/2016/188 Developing vegetable value chains to meet evolving market expectations in the Philippines
- AGB/2014/035 Improving livelihoods in Myanmar and Vietnam through vegetable value chains
- Aus4Innovation CoolBot project

Completed research projects

Agronomy / Soil management

- INNOV-2001 Demonstrating the benefits of no-till permanent bed vegetable production
- VG13075 Low-cost protected cropping assessment for the vegetable industry
- VG13076 Soil Wealth – Soil condition extension

- BS12010 Determine optimum nitrogen and potassium requirement to maximise yield and quality of day-neutral Victorian strawberries
- VG12017Controlling multiple heading and transplant shock in lettuce
- VG12115Integrating sustainable soil health practices into a commercial vegetable farming operation
- VG15062 Review of anhydrous ammonia for vegetable production
- VG13050 Using vegetable waste to produce fish food
- AP08004Managing the risk of flesh browning for Cripps Pink apples using a climate model
- VG12046Identifying new products, uses and markets for Australian vegetables: A desktop study.
- VG11034Benchmarking uptake of soil health practices.
- Development of a crop-scheduling program for babyleaf spinach in the major growing regions of Australia
- Development of a crop scheduling program for Cos and Iceberg lettuce in the Major Growing Regions of Australia
- Optimising agronomic and postharvest requirements for a new pomegranate juice industry in Australia
- Agronomic program to improve the uniformity of broccoli for once-over mechanical harvest
- Development of an Integrated Production System for honeydew melons, rockmelons, seedless watermelons and personal melons
- Evaluation of new processing tomato cultivars
- Best practice manual and training for the Australian lettuce industry
- Development of optimal agronomy and postharvest handling for Australian babyleaf salad vegetables (HAL and OneHarvest)
- TM006 valuation of new processing tomato cultivars.
- TM005 Evaluation of new processing tomato cultivars.
- VX02026Improving agronomic management for seedless watermelons.
- VG03092Agronomic and postharvest improvement in Iceberg and Cos lettuce to extend shelf-life for fresh- cut salads.
- VX00019Development of a crop-management program to improve the sugar content and quality of rockmelons.
- VX01033Establishment of sustainable minimum tillage techniques with Australian vegetable growers.
- Proposal to evaluate the effects of "5th Element" organic liquid fertiliser on yield and nutrient levels in plants, produce and soil
- A novel irrigation strategy for manipulating grapevine physiology to economise on water use in the production of high-quality grapevines. Australian Research Council
- Development of a sustainable integrated permanent bed system for vegetable crop production

Pest and disease

- VG13042 Fruit fly field research
- VG12108 Improving the management of insect contaminants in processed leafy vegetables
- VG13078 Integrated Crop protection extension
- VG13040 Qld fruit fly GAP analysis
- SAR in rhubarb
- SAR and powdery mildew in cucurbits
- Review weed control in citrus

Market and consumer research

- VG12084 Enhancing market attitudes towards IPM and sustainable vegetable production practices
- Identifying bioactive components and portion sizes in avocados for consumer health

Postharvest / Food safety / Health and nutrition

- DG15001 Colour assessment of dried grapes
- VG13083 Postharvest extension for the vegetable industry
- CH13005 Improved postharvest management of chestnuts

- VG13086 Broccoli postharvest project
- Development of shelf-life indicators for babyleaf spinach and rocket
- Developing a nutrient and/or health claim label for packaged baby leaf spinach and rocket
- Development of a new, processed carrot industry to export bioactive phytonutrients for juice and nutraceuticals
- Flesh browning in Pink Lady apples
- Development of new quality testing criteria for citrus

Environmental

- Horticulture: Taking action to capture carbon and reduce nitrous oxide emissions AOTGR1-956565-129
- MT12047 Impact of improved inter-row management on productivity, soils and greenhouse gas emissions in apple and cherry orchards
- TM12001 The impact of subsurface trickle irrigation and improved soil management on the greenhouse gas emissions from Australian processing tomato crops
- VG13051 Feasibility study – On-farm power generation options
- VG12041 and VG12049 Understanding and managing impacts of climate change and variability on vegetable industry productivity and profits (
- Quantifying the effects of no-till vegetable farming and organic mulch on greenhouse gas emissions and soil carbon
- Reducing nitrous oxide emissions in key perennial tree crop industries
- Unravelling the links between plant transpiration, soil water and nitrate movement: Impact of high atmospheric CO_2 and irrigation strategy
- Conservation of forest resources by improving sustainability of vegetable production systems
- VG98050Development of a sustainable integrated permanent bed system for vegetable crop production

Communications / Extension

- VG15049 Coordination of National Vegetable Extension Network
- VG15028 VegPRO Vegetable education project
- SF15003 Produce *Stone Fruit Australia* magazine (HIA)
- VG12087Updating and republishing valuable vegetable industry resources
- AV12005 Evaluation of short video as a tool to communicate project outcomes in avocados

International

- Improving income and nutrition in Eastern and Southern Africa by enhancing vegetable-based farming and food systems in peri-urban corridors (ACIAR)
- Improved postharvest management of fruit and vegetables in the Philippines and Australia (ACIAR)
- HORT 2012/020 Integrated Crop Management (ICM) to enhance vegetable profitability and food security in the Southern Philippines and Australia (ACIAR)
- Improved market engagement for counter-seasonal vegetables producers in North-West Vietnam (ACIAR)
- Development of a cost-effective protected vegetable cropping system in the Philippines – vegetable program: component 2. (HORT/2007/066-2 ACIAR)
- Reducing pesticide residues, improving cucurbit and leafy vegetable agronomic and postharvest handling in Vietnam through improved varieties, IPM and training CARD (AusAID)
- Evaluating the impact of improved soil and water-management practices on Bohol Island, the Philippines (ACIAR)

Training

- Water Use Efficiency – interpretation and training in the use of soil moisture data
- Development of online learning materials for
- Lettuce agronomy and postharvest training

Publications

Books and guides

Ekman, J., Tesoriero, L. and Grigg, S. (2014). Pests, diseases and disorders of brassica vegetable: A field identification guide. 124 pages. Applied Horticultural Research, Sydney.

Ekman, J., Tesoriero, L. and Grigg, S. (2014) Pests, diseases and disorders of babyleaf vegetables: A field identification guide. 114 pages. Applied Horticultural Research, Sydney.

Ekman, J. (2015) Pests, diseases and disorders of carrots, celery and parsley: A field identification guide. 64 pages. Applied Horticultural Research, Sydney.

Ekman, J. (2015) Pests, diseases and disorders of sweet corn: A field identification guide. 76 pages. Applied Horticultural Research, Sydney.

Ekman, J. (2015) Pests, diseases and disorders of sweetpotato: A field identification guide. 96 pages. Applied Horticultural Research, Sydney.

Recent research publications in refereed journals

Nguyen Phi Hung, Peter Ampt, Gordon Rogers & Ly Thi Thu Ha (2021) Preliminary N2O Emissions of Major Vegetable Cropping Systems in Peri-urban Hanoi, Vietnam. Vietnam Journal of Agricultural Sciences 4(4): 1257-1269.

Jennifer **Ekman**, Adam **Goldwater**, Mark Bradbury, Jim Matthews and Gordon **Rogers** (2020) Persistence of Human Pathogens in Manure-Amended Australian Soils Used for Production of Leafy Vegetables Agriculture, vol. 11, issue 1, 1-18

Gonzaga, Z. C., Robido, J. R. O., Rom, J. C. Capuno, O. B. and **Rogers, G. S.** (2018) Growth and yield of lettuce (Lactuca sativa L.) as influenced by methods of raising seedlings under two types of cultivation system. Acta Horticulturae Issue: 1205: 843-849.

Gonzaga, Z. C., Rom, J. C. Capuno, O. B. and **Rogers, G. S.** (2018) Growth and yield of lettuce (Lactuca sativa L.) grown under two types of cultivation systems as influenced by different organic soil amendments. Acta Horticulturae Issue: 1205: 851-855.

Goldwater, A. D. ; Ekman, J. H. ; Rogers, G. S. (2018) The effects of floating row covers on yield and quality of field-grown capsicum (Capsicum annuum L.). Acta Horticulturae Issue: 1205 891-896.

Bayogan, E. V.; Lacap, A. T.; **Ekman, J. H.** (2017) Quality changes in sweet pepper (Capsicum annuum L. 'Smooth Cayenne') under simulated retail conditions. Acta Horticulturae Issue: 1179 213-219

Harber, A.; Rogers, G.; Tan, D. K. Y. (2017) The effect of cover crops on physical, chemical and microbial properties of a sandy loam soil and baby leaf spinach yield. Proceedings of the 18th Australian Agronomy Conference 2017, Ballarat, Victoria, Australia, 24-28 September 2017.

Walden, L. L.; Harper, R. J.; Sochacki, S. J., **Montagu, K.** et al. (2017) Mitigation of carbon using Atriplex nummularia revegetation. Ecological Engineering Volume: 106 Issue: Part A 253-262.

Montagu, K.; Moore, S.; **Southam-Rogers, L. Hung, N. P.**, Mann, L. ; **Rogers, G.** (2017) Low nitrous oxides emissions from Australian processing tomato crops - a win for the environment, our health and farm productivity. Acta Horticulturae Issue: 1159 p.7-13

Gracie, M. Taguchi, **G. Rogers**, F. Appiah (2016) International Symposium on Horticulture in Developing Countries and World Food Production. XXIX International Horticultural Congress on Horticulture: Sustaining Lives, Livelihoods and Landscapes (IHC2014): Acta Horticulturae 1128 (Editors).

Rogers, G. (2016) A poverty-busting agribusiness model. Partners in Research for Development Issue 3:22-23

L.M. Borines, Z.C. Gonzaga, O.B. Capuno, R.G. Gerona, D.C. Lusanta, H.B. Dimabuyu, M.L.P. Vega, **G.S. Rogers** (2016) Diseases commonly affecting vegetables in Eastern Visayas, Philippines, and their incidence under protective structure and in the open field. Acta Horticulturae Issue: 1128: 117-123

H.B. Dimabuyu, Z.C. Gonzaga, D.C. Lusanta, J.S. Mangmang, O.B. Capuno, **G.S. Rogers** (2016) Reducing disease incidence and increasing productivity of ampalaya (Momordica charantia L.) through pruning and protected cultivation. Acta Horticulturae Issue: 1128: 177-182

R.G. Gerona, Z.C. Gonzaga, O.B. Capuno, P.T. Armenia, M.B. Loreto, L.B. Nuñez, L.M. Borines, A.B. Tulin, E.R. Tauza, D.C. Lusanta, H.B. Dimabuyu, M.L.P. Vega, J.S. Mangmang, **G.S. Rogers**, K.M. Menz (2016) Sustainable vegetable

production through the use of low-cost protective structures: a farmer's experience in Bontoc, southern Leyte, Philippines. Acta Horticulturae Issue: 1128: 171-176.

Swarts, N. ; **Montagu, K.** ; Oliver, G. ; **Southam-Rogers, L.** ; Hardie, M. ; Corkrey, R. ; **Rogers, G.** ; Close, D. (2016) Benchmarking nitrous oxide emissions in deciduous tree cropping systems. Soil Research 54:5 500-511

Mangmang, J. S. ; Deaker, R. ; **Rogers, G** (2016) Response of cucumber seedlings fertilized with fish effluent to Azospirillum brasilense. International Journal of Vegetable Science 22:2 129-140

Mangmang, J. S.; Deaker, R.; **Rogers, G** (2016) Inoculation effect of Azospirillum brasilense on basil grown under aquaponics production system. Organic Agriculture 6:1 65-74

Mangmang, J. S.; Deaker, R.; **Rogers, G**. (2016) Germination characteristics of cucumber influenced by plant growth-promoting rhizobacteria. International Journal of Vegetable Science 22:1 66-75

Capuno, O. B. ; Gonzaga, Z. C. ; Loreto, M. B. ; Gerona, R. G. ; Borines, L. M. ; Tulin, A. B. ; Lusanta, D. C. ; Dimabuyu, H. B. ; Vega, M. L. P. ; Mangmang, J. S. ; **Rogers, G. S.** (2016) Development of a cost-effective protected vegetable cropping system in the Philippines. Acta Horticulturae Issue: 1107: 221-227.

Hall, M. K. D., J. J. Jobling and G. S. Rogers (2015). "Effect of nitrogen supply and storage temperature on vitamin C in two species of baby leaf rocket, and the potential of these crops for a nutrient claim in Australia." Journal of Plant Nutrition 38(2): 246-259.

Mangmang, J. S., Deaker, R. & **Rogers, G**. 2015. Early seedling growth response of lettuce, tomato and cucumber to Azospirillum brasilense inoculated by soaking and drenching. Horticultural Science, 42:1, 34-46

Mangmang, J., Deaker, R. & **Rogers, G**. 2015. Optimal plant growth promoting concentration of Azospirillum brasilense inoculated to cucumber, lettuce and tomato seeds varies between bacterial strains. Israel Journal of Plant Science. Israel Journal of Plant Sciences 62:3 145-152.

Mangmang, J., Deaker, R. & **Rogers, G.** 2015. Response of lettuce seedlings fertilized with fish effluent to Azospirillum brasilense inoculation. Biological Agriculture & Horticulture, 31:1, 61-71

Mangmang, J., Deaker, R. & **Rogers, G**. 2015. Azospirillum brasilense enhances recycling of fish effluent to support growth of tomato seedlings. Horticulturae. 1:1, 14-26

Mangmang, J., Deaker, R. & **Rogers, G**. 2015. Response of cucumber seedlings fertilized with fish effluent to Azospirillum brasilense. International Journal of Vegetable Science. DOI: 10.1080/19315260.2014.967433.

Mangmang, J., Deaker, R. & **Rogers, G**. 2015. Inoculation effect of Azospirillum brasilense on basil grown under aquaponics production system. Organic Agriculture. DOI: 10.1007/s13165-015-0115-5.

Hall, M. K. D., J. J. Jobling and **G. S. Rogers** (2015). "Fundamental differences between perennial wall rocket and annual garden rocket influence the commercial year-round supply of these crops." Journal of Agricultural Science (Toronto) 7(3): 1-7.

Hall, M. K. D., J. J. Jobling and **G. S. Rogers** (2015). "Variations in the most abundant types of glucosinolates found in the leaves of baby leaf rocket under typical commercial conditions." Journal of the Science of Food and Agriculture 95(3): 552-559.

Mangmang, J., Deaker, R. and **Rogers, G**. (2014). Effects of plant growth promoting rhizobacteria on seed germination characteristics of tomato and lettuce. *Journal of Tropical Crop Science,* 1:2: pp. 35–40.

Rogers, G. S., Jobling, J. J., Weerakkody, P. (2014). Fruit growth and bioactive development in pomegranate fruit. *Acta Horticulturae* Issue: 1040: pp. 269–275.

Hall, M. K. D., A. J. Winters and **G. S. Rogers** (2014). Variations in the diurnal flux of greenhouse gases from soil and optimising the sampling protocol for closed static chambers. *Communications in Soil Science and Plant Analysis* 45(22): pp. 2970–2978.

Dominiak, B. C. and **Ekman, J. H.** (2013). The rise and demise of control options for fruit fly in Australia. *Crop Protection* 51: pp. 57–67.

Hall, M. K. D., Jobling J. J., **Rogers, G.S.** (2013) Influence of storage temperature on seasonal shelf-life of perennial wall rocket and annual garden rocket. *International Journal of Vegetable Science* 19: pp. 83–95.

Armenia, P. T., Menz, K. M., **Rogers, G. S.**, Gonzaga, Z. C., Gerona R. G. and Tausa, E. R. (2013). "Economics of vegetable production under protected cropping structures in the Eastern Visayas, Philippines". *ACIAR Proceedings Series* (139): pp. 112–122.

Gonzaga, Z. C., Capuno, O. B., Loreto, M. B., Gerona, R. G., Borines, L. M., Tulin, A. T., Mangmang, J. S., Lusanta, D.C., Dimabuyu, H. B. and **Rogers, G. S.** (2013). "Low-cost protected cultivation: Enhancing year-round production of high-value vegetables in the Philippines". ACIAR Proceedings Series (139): pp. 123–137.

McMahon, T., Tapsell, L., Williams, P. and Jobling, J. J. (2013) Babyleaf green vegetables: providing insight into an old problem? An exploratory qualitative study examining influences on their consumption. *Health Promotion Journal of Australia*. Journal reference: 10.1071/HE12901

Ekman, J. H., Pristijono, P and Spohr, L. J. (2012). Effect of a short hot water treatment on thermal tolerance of Queensland fruit fly, *Bactrocera tryoni* (Froggatt) infesting capsicum annuum cultivars. *General and Applied Entomology* 41: pp. 39–47.

Hall M. K. D., Jobling J. J., **Rogers G. S**. (2012) Some perspectives on rocket as a vegetable crop: a review. *Vegetable Crops Research Bulletin* 76: pp. 21–41.

Hall M., Jobling J., **Rogers G**. (2012). The germination of perennial wall rocket (*Diplotaxis tenuifolia* L.) DC. and annual garden rocket (*Eruca sativa* Mill.) under controlled temperatures. *Plant Breeding and Seed Science* 65: pp. 15–28.

Hall, M. K. D., Jobling, J. J., **Rogers, G. S.** (2012) Factors affecting growth of perennial wall rocket and annual garden rocket. *International Journal of Vegetable Science* 18: pp. 393–411.

Weerakkody, P., Jobling J., Infante, M. M. V., **Rogers G.** (2010). The effect of maturity, sunburn and the application of sunscreens on the internal and external qualities of pomegranate fruit grown in Australia. *Scientia Horticulturae* 124: pp. 57–61.

Fuentes S., Collins C., **Rogers G.**, Acevedo C., Conroy J. P. (2009). Nocturnal heat-pulse sap flow as a sensitive system to assess drought effects on grapevines: an irrigation scheduling application? *Acta Horticulturae* 846: pp. 167–176.

Fuentes, S., **Rogers, G.**, Jobling, J., Conroy, J., Camus, C., Dalton, M., and Mercenaro, L. (2008). A soil-plant-atmosphere approach to evaluate the effect of irrigation strategy on grapevine (cv. Shiraz) water and nutrient uptake, grape quality and yield. *Acta Horticulturae* 79: pp. 543-549.

Rogers, G., Fuentes, S., Shuttleworth, L., Fox, M., Dalton, M., and Conroy, J. (2008). Evaluation of a combined soil EC and moisture sensor and its use to co-manage soil moisture and vine nitrogen in Grapevines (cv. Shiraz) under deficit irrigation. *Acta Horticulturae* 792: pp. 297–303.

Atwell, B. J., Martin, A.E., Henery L., **Rogers, G. S.**, Seneweera, SP., Treadwell, M. and Conroy, J.P. (2007). Canopy development and hydraulic function in *Eucalyptus tereticornis* grown in drought in CO-enriched atmospheres. *Functional Plant Biology*, 2007, 34, 1137–1149.

McConchie, R., **Rogers G**. (Editors) (2007). "Proceedings of the Third International Symposium on Cucurbits, Townsville, Australia, 11-17 September 2005". *Acta Horticulturae* No. 731, 524 pages.

Fuentes S, **Rogers, G**, Conroy, J., Jobling, J., Camus, C. (2006). Where does the fertiliser go? Visualising soil-plant fertigation dynamics on grapevines (*Vitis vinifera* L. variety Shiraz). *Grapegrower and Winemaker* Issue 509: pp. 23–36.

Long, R. L., Walsh, K. B., Midmore, D. J. and **Rogers, G.** (2006). Irrigation scheduling to increase muskmelon (*Cucumis melo* L.) fruit biomass and soluble solids concentration. *HortScience* 41 (2): pp. 367–369.

Rogers G. S., Jobling J., Titley M. E., et al. (2006). The influence of trimming intensity and pre-processing storage on the shelf life of fresh cut Romaine lettuce (*Latuca sativa* L.). *Acta Horticulturae* No. 712 (Vol. 1)): pp. 231–235.

Lester, G. E., Jifon, J. L., **Rogers G.** (2005). Supplemental foliar potassium applications during muskmelon fruit development can improve fruit quality, ascorbic acid, and beta-carotene contents. *Journal of the American Society for Horticultural Science* 130 (4): pp. 649–653.

Fuentes, S., Kelley, G., Collins, M., **Rogers, G.**, Conroy, J. (2005). Use of infrared thermography to assess spatial and temporal variability of stomatal conductance of grapevines under partial rootzone drying. An irrigation scheduling application. *Acta Horticulturae* No. 689: pp. 309–316.

Long, R. L. Walsh, K. B., **Rogers, G.**, Midmore, D. J. (2004). Source-sink manipulation to increase melon (*Cucumis melo* L.) fruit biomass and soluble sugar content. *Australian Journal of Agricultural Research* 55:12 – pp. 1241–1251.

Fuentes, S., **Rogers, G.**, Conroy, J., Ortega-Farias, S., Acevedo, C. (2004). Soil wetting pattern monitoring is a key factor in precision irrigation of grapevines. *Acta Horticulturae* No. 664: pp. 245–252.

Rogers, G. S., Little, S.A., Silcock, S. J., Williams, L. F. (2004) No-till vegetable production using organic mulches. *Acta Horticulturae* No. 638: pp. 215–223.

Rozycki, J. (2003). Poor fellow my country – Australians face the challenge of salinity as it lays waste our agricultural land and decimates biodiversity. Refereed feature in *Australian Geographic* journal No. 72, Oct–Dec: pp. 36–51.

Long R., Walsh K., Midmore D., **Rogers G.**, et al. (2002) NIR estimation of rockmelon (*Cucumis melo*) fruit TDS, in relation to tissue inhomogeneity. *Acta Horticulture* No. 588: pp. 357–361.

Conroy, J.P., Ghannoum, O., Jitla, D., **Rogers, G**. and Seneweera, S. (1998). "Plants responses to elevated CO_2 and climate stress". *Proceedings of the Fourth International Symposium of Responses of Plant Metabolism to Air Pollution and Global Change*. Backhuy's Publishers, Leiden, Netherlands.

Rogers, G., Gras, P., Payne, L., Milham, P., and Conroy, J. (1998). The influence of CO_2 concentrations ranging from 280 to 900 μLL^{-1} on the protein starch and mixing properties of wheat flour (*Triticum aestivum* L. cv. Hartog and Rosella). *Australian Journal of Plant Physiology* 25 (3): pp. 387–393.

Jitla, D., **Rogers, G**. S., Basra, A., Oldfield, R. and Conroy, J. (1997). Accelerated early growth of rice at elevated CO_2: Is it related to developmental changes in the shoot apex. *Plant Physiology* 114, pp. 15–22.

Seneweera, S., Ghannoum, O., **Rogers, G.** and Conroy, J. (1998) High vapor pressure deficits and low soil water availability influences the response of a C_4 grass (*Panicum coloratum* cv. bambatsi) to elevated atmospheric CO_2 concentrations. *Australian Journal of Plant Physiology* 25 (3).

Rogers, G. S., Milham, P. J., Gillings, M. and Conroy, J. (1996). Sink strength may be the key to growth and nitrogen responses in N-deficient wheat at elevated CO_2. *Australian Journal of Plant Physiology* 23: pp. 253–264.

Conroy, J., **Rogers, G.**, Seneweera, S., Basra, A. S., Jones, B. and Ghannoum, O. (1996). Influence of global change on productivity and quality of crops and pastures. In *Crop Research in Asia: Achievements and Perspectives*. Eds R. Ishii and T. Horie: pp. 52–58. Kyoritsu printing, Tokyo, Japan.

Rogers, G. S., Milham, P. J., Thibaud, M. C. and Conroy, J. P. (1996). Interactions between rising CO_2 concentration and N supply on cotton (*Gossypium hirsutum* L.): I. Leaf N concentration and growth. *Australian Journal of Plant Physiology,* 23: pp. 119–125.

Conroy, J.P., Seneweera, S., Basra, A.S., **Rogers, G**. and Nissenwooller, B. (1994). Influence of rising atmospheric CO_2 concentrations and temperature on growth, yield and grain quality of cereal crops. *Australian Journal of Plant Physiology* 21: pp. 741–758.

Rogers, G.S., Payne, L., Milham, P. and Conroy, J. (1993) Nitrogen and phosphorus requirements of cotton and wheat under changing atmospheric CO_2 concentrations. *Plant and Soil* 156: pp. 231–234.