



## CREATING MULTIFUNCTIONAL FARMS AND CATCHMENTS

4:00 pm	Norman Taylor Memorial Lecture - Steve Wakelin, Scion Research (AHLB, Massey University)
4:45 pm	Ice-breaker and networking

### Day 1 - Tuesday 3rd February 2026

9:00 am	Welcome - Professor Chris Anderson, Farmed Landscapes Research Centre
9:10 am	Professor Paul Kenyon, School of Agriculture & Environment, Massey University

#### Session 1: Multifunctional Farms & Catchments - A National and Global Perspective

9:20 am	Andrew Hoggard	OPENING ADDRESS - HON. ANDREW HOGGARD
9:45 am	Katrin Bieger, Denmark (Keynote)	USING CATCHMENT-SCALE MODELS TO MANAGE WATER QUANTITY AND QUALITY IN AGRICULTURAL AREAS: CAPABILITIES AND LIMITATIONS OF SWAT+
10:15 am	Discussion	Q&A

### Morning tea/coffee: 10:25 am - 10:55 am

#### Session 2: Carbon and it's Role in Multifunctional Catchments

11:00 am	Paul Mudge	DESIGN AND RESULTS FROM A NATIONAL SOIL CARBON STOCK BENCHMARKING AND MONITORING SYSTEM FOR AGRICULTURAL LAND IN NEW ZEALAND
11:10 am	Miko Kirshchbauam	EFFECTS OF ELEVATED CO2 ON FOREST GROWTH AND AVERAGE CARBON STOCKS
11:20 am	Donna Giltrap	MODELLING CHANGES IN CARBON STORAGE FOLLOWING LAND-USE CHANGE
11:30 am	Rachel Agnew	LAND FOR LIFE   BUILDING A RESILIENT, PROFITABLE AND NATURE POSITIVE FUTURE FOR NZ'S PASTORAL FARMING SECTOR
11:50 am	Angela Parkin	AOTEAROA NEW ZEALAND FARMERS' PERCEPTIONS ON INTEGRATING INDIGENOUS BIODIVERSITY MANAGEMENT INTO PASTORAL FARM SYSTEMS
12:00 pm	Discussion	Q&A
12:15 pm	<b>Poster Introductions</b>	
	Han Xie	QUANTIFYING THE ENVIRONMENTAL FOOTPRINT AND HANDPRINT OF LIFESTYLE BLOCKS – SUPPORTING MULTIFUNCTIONAL CATCHMENT SOLUTIONS
	Jalal Moradi	INFLUENCE OF REGENERATIVE MANAGEMENT ON PHOSPHORUS DYNAMICS AND CYCLING IN GRAZED SYSTEMS
	Upulika Jayaneththi	DYNAMICS OF SOIL BACTERIAL MICROBIOME UNDER DIFFERENT PASTURE MANAGEMENT SYSTEMS
	Jeff Brown	MULTISPECIES PASTURES WITH ACTIVE BIOLOGICS – TOOLS TO REDUCE NUTRIENT LOSSES AND GREENHOUSE GAS EMISSIONS

### Lunch: 12:25 pm - 1:10 pm

#### Session 3: Multifunctional & Diverse Farm Systems

1:10 pm	<b>Poster Introductions</b>	
	Mayaba Miyanda	NITRATE LEACHING UNDER SHEEP GRAZING OF HYPER-DIVERSE AND STANDARD PASTURES MANAGED EITHER CONTEMPORARILY OR REGENERATIVELY OVER A YEAR
	Sumaia Mahmuda	MITIGATING NITRATE LEACHING IN DAIRY SYSTEMS: EVALUATING THE ROLE OF DIVERSE PASTURES AND REGENERATIVE MANAGEMENT
	Kaloni Arena Alu	TRACE ELEMENT ACCUMULATION IN LAMBS: IMPACTS OF STANDARD VS. DIVERSE PASTURE UNDER CONTEMPORARY AND REGENERATIVE MANAGEMENT
	Yuehui Ma	ASSESSING PUGGING UNDER REGENERATIVE VERSUS CONTEMPORARY DAIRY GRAZING AND DIVERSE VERSUS STANDARD PASTURES IN NEW ZEALAND
	Yuehui Ma	ESTABLISHING BASELINE SOIL PHYSICS DATA TO SUPPORT THE WHENUA HAUMANU REGENERATIVE AGRICULTURE TRIAL IN NEW ZEALAND
1:25 pm	Charles White, USA (Invited Speaker)	INCREASING AGROECOSYSTEM MULTIFUNCTIONALITY WITH COVER CROP MIXTURES
1:45 pm	Katherine Martin	CROP STACKING: REDUCING NITROGEN LOSS IN VEGETABLE PRODUCTION SYSTEMS
1:55 pm	Rukshagini Sutharsan	BIOLOGICAL NITROGEN FIXATION UNDER STANDARD AND DIVERSE PASTORAL SYSTEMS
2:05 pm	Henry O Ota	DO SOIL CARBON AND NITROGEN STOCKS DIFFER BETWEEN CUT-AND-CARRY AND GRAZED PASTURE?
2:15 pm	Ashna Khan	ENHANCING SHEEP VITALITY THROUGH DIVERSE PASTURES AND SEAWEED BIO-STIMULANTS: A PATHWAY TO MULTIFUNCTIONAL FARMS AND CATCHMENTS
2:25 pm	Dan Bloomer	CARBON POSITIVE: CARBON STOCK-TAKE THREE YEARS ON
2:35 pm	Discussion	Q&A
2:45 pm	<b>Poster Introductions</b>	
	Shiromi Samiraja	COVER CROPPING AND DIRECT MULCH PLANTING FOR IMPROVING THE SUSTAINABILITY OF VEGETABLE PRODUCTION IN NEW ZEALAND
	Olivia Webster	SLAKES AND NITRACHEK: NEW TOOLS FOR GROWERS
	Will Talbot	EYES ON THE PRIZE: SMARTER VARIABLE RATE FERTILISER APPLICATIONS WITH HAWKEYEPRO
	Greg Sneath	UNDERSTANDING AND MANAGING THE NATURAL VARIABILITY IN SOIL OLSEN P LEVELS IS ESSENTIAL FOR BALANCING PRODUCTIVE AGRICULTURE WITH ENVIRONMENTAL PROTECTION
	Courtney Durham	EXPLORING INHERENT FERTILITY OF PALEOSOLS WITHIN TEPHRA SEQUENCES IN THE TAUPŌ VOLCANIC ZONE
	Birendra KC	SPATIO-TEMPORAL VARIABILITY IN INFLOW AND INFILTRATION INTO SEWER NETWORKS UNDER DIFFERENT SOILS

**Afternoon tea/coffee: 3:00 pm - 3:25 pm**

**Session 4: The Urine Patch**

3:30 pm	<b>Poster Introductions</b>	
	Jimena Rodriguez	BARN STORMING' - THE USE OF BARNES IN MANAGING ENVIRONMENTAL AND ANIMAL HEALTH
	Charuka Chandrasekara	INTEGRATING PORTABLE SENSOR TECHNOLOGIES TO ASSESS TEMPERATE PASTURE QUALITY FOR OPTIMISED GRAZING MANAGEMENT IN NZ
	Samuel A. Olawole	QUANTIFYING METHANE EMISSIONS FROM SHEEP USING GREENFEED AND RESPIRATION CHAMBERS
	Surinder Saggar	POTENTIAL FOR NITROUS OXIDE MITIGATION WITH SHEEP GRAZING ON PLANTAIN AND DIVERSE PASTURES IN HAWKE'S BAY
	Grace Chibuike	THE POTENTIAL OF PLANT-DERIVED SOIL ADDITIVES FOR MITIGATING NITROGEN LOSSES FROM PASTURE SOILS
3:45 pm	Surinder Saggar	EVALUATION OF ON-FARM NITRIFICATION INHIBITOR APPLICATION TO URINE PATCHES IN REDUCING NITROUS OXIDE EMISSIONS
3:55 pm	Marta Alfaro	KEY FACTORS AFFECTING THE EFFICACY OF AUCUBIN ON NITRIFICATION INHIBITION
4:05 pm	Gautam Shrestha	EFFECTS OF BIOLOGICAL NITRIFICATION INHIBITION BY RYEGRASS ON NITROUS OXIDES EMISSIONS FROM URINE PATCHES
4:15 pm	Pablo Lacerda Ribeiro	DOES SOIL MOISTURE IMPACT THE EFFECTIVENESS OF PLANTAIN IN MITIGATING N <sub>2</sub> O EMISSIONS FROM URINE PATCHES?
4:25 pm	Marianne Read	IMPACT OF PHOSPHORUS AVAILABILITY ON DRY MATTER PRODUCTION FROM URINE PATCHES TREATED WITH GIBBERELIC ACID IN TARANAKI SOILS
4:35 pm	Discussion	Q&A
4:50 pm	<b>Poster Introductions</b>	
	Malcolm Todd	FARM PLAN CONTAMINANT PATHWAYS AND RISK MAPPING
	Fernando Avendaño	ADAPTATION AND APPLICATION OF A GIS-BASED TOOL FOR MAPPING OF POTENTIAL DETAINMENT BUNDPS120© SITES AT CATCHMENT-SCALE

John Paterson	THE POTENTIAL FOR FLOODING MITIGATION WITH CATCHMENT WIDE INSTALLATION OF DETAINMENT BUNDSPS120
Ranvir Singh	CONTROL (MANAGED) DRAINAGE IN COASTAL RANGITIKEI SOILS
Brian Ellwood	ENHANCING WASTEWATER MANAGEMENT THROUGH INTEGRATED LAND AND WETLAND TREATMENT SYSTEMS
Jimena Rodriguez	WHAT YOU GET FROM INFIELD LYSIMETERS AT AN INDUSTRIAL SITE
Matthew Taylor	DEVELOPMENTS IN THE USE OF EDNA TO MONITOR SOIL HEALTH
Fangjie Ren	ENHANCING THE WELFARE OF FARMED PIGS WITH ENRICHMENT, AND INVESTIGATING THE IMPACT OF EXTERNAL STIMULI ON THEIR EMOTIONAL STATE AND BEHAVIOUR
Rowland Tsimba	EVALUATING TILLAGE PRACTICES FOR SUSTAINABLE MAIZE PRODUCTION IN NEW ZEALAND: BALANCING SOIL HEALTH AND CROP PERFORMANCE

5.15 pm - 6.15 pm

POSTER DISPLAYS AND NETWORKING

**Conference Dinner: 6:30 pm - 10:00 pm (including a panel discussion - TBC)**

## Day 2 - Wednesday 4th February 2026

### Session 5: Water Quality In Our Farms and Catchments

8:30 am	Mary Ryan, Ireland (Invited Speaker)	BEHAVIOURAL INSIGHTS ON WATER QUALITY MEASURE ADOPTION - AN IRISH PERSPECTIVE
8:50 am	Hamish Lowe	DESIGNING WHOLE FARM MITIGATION SOLUTIONS
9:00 am	Steve Cantwell	BEST LAID (FARM) PLANS: WHY GOOD PLANNING DEPENDS ON PEOPLE, NOT PAPERWORK
9:10 am	Arron Hutton	ADVANCING NUTRIENT STEWARDSHIP: SCALABLE IDENTIFICATION OF PHOSPHORUS RUNOFF RISK ZONES IN HILL COUNTRY PASTORAL LANDSCAPES
9:20 am	Jo Gascoigne	RISK INDEX TOOL FOR ON-FARM NUTRIENT MANAGEMENT
9:30 am	Stephen Collins	DEVELOPMENT OF A LANDSCAPE SUBSURFACE NITRATE-ATTENUATION INDEX FOR THE MANAWATŪ-WHANGANUI REGION
9:40 am	Katrina Macintosh	MEASURES, METRICS AND STREAM SIZE – WHAT’S THEIR ROLE IN UNDERSTANDING AND MANAGING E. COLI CONTRIBUTIONS IN A SMALL PASTORAL CATCHMENT?
9:50 am	Discussion	Q&A

**Morning tea/coffee: 10:00 am - 10:25 am**

### Session 6: Multifunctional Considerations for Catchments

10:30 am	John Roche (Invited Speaker)	PRIME MINISTER'S CHIEF SCIENCE ADVISOR
10:50 am	Chris Tanner (Invited Speaker)	OPTIMIZING COST-EFFECTIVE MITIGATION STRATEGIES FOR DIFFUSE AGRICULTURAL POLLUTION ACROSS DIVERSE NEW ZEALAND LANDSCAPES
11:05 am	Natalie North	EVALUATING AND GROUND TRUTHING AN AUTOMATED GIS TOOL FOR MAPPING DETAINMENT BUNDPS120 SITES AT CATCHMENT SCALE
11:15 am	John Paterson	THE POTENTIAL FOR, AND COMMUNITY BENEFITS OF CATCHMENT-SCALE IMPLEMENTATION OF DETAINMENT BUNDS PS120: A CASE STUDY IN MANGAONE WEST, MANAWATU
11:25 am	Andrew Hughes	VARIABILITY IN POLLUTANT REMOVAL AT DETAINMENT BUNDPS120 SITES WITH POORLY DRAINED SOILS
11:35 am	Fernando Avendaño	MODELLING EFFECTIVENESS OF DETAINMENT BUNDS IN REDUCING SEDIMENT YIELDS AT CATCHMENT-SCALE
11:45 am	Barndon Goeller	ABILITY OF CONSTRUCTED WETLANDS TO REDUCE NUTRIENT, SEDIMENT, AND FAECAL BACTERIA LOSSES ACROSS DIVERSE FARMED CATCHMENTS
11:55 am	Stefania Romero Ramirez	EVALUATING WOODCHIP BIOREACTORS FOR MITIGATING DRAINAGE NITRATE LEVELS FROM A MUNICIPAL WASTEWATER LAND TREATMENT SITE
12:05 pm	Discussion	Q&A

**Lunch: 12:20 pm - 1:00 pm**

### Session 7: Looking Forward for our Farms and Catchments

1:05 pm	Paul Mudge	WHAT ARE THE FUTURE PRIORITIES FOR SOIL RESEARCH IN AOTEAROA NEW ZEALAND? STARTING THE DISCUSSION
1:15 pm	Dishan Fonseka	NITROGEN CYCLING GENE ABUNDANCE UNDER CONIFEROUS SHELTERBELTS IN NEW ZEALAND PASTORAL SYSTEMS
1:25 pm	Madusha Dissanayake	MYCORRHIZAE RESPONSE TO SOIL OLSEN PHOSPHORUS AND PHOSPHONATE FUNGICIDE IN AVOCADO SEEDLINGS
1:35 pm	Callum Rees	MONITORING THE APPLICATION OF OIL AND GAS DRILLING MUD TO LAND IN SOUTH TARANAKI

1:45 pm	Sourajit Sahoo	UPSTREAM AND DOWNSTREAM CARBON DIOXIDE LOSS WITH ENHANCED WEATHERING APPLICATION IN NEW ZEALAND PASTURES
1:55 pm	KC Mohan	HOW MUCH CARBON DO PASTURES LOSE DURING DROUGHT CONDITIONS?
2:05 pm	Charlotte Robertson	VERMICOMPOSTING OF ORGANIC WASTES TO IMPROVE COMMERCIAL FOOD PRODUCTION WITHIN A CIRCULAR ECONOMY
2:15 pm	Yin Ying Chin	SOIL NITROGEN LOADING AND DRAINAGE PROFILE ON EQUINE GRAZED PASTURE
2:25 pm	Discussion	Q&A

Afternoon tea/coffee: 2:40 pm - 3:10 pm

#### Session 8: Overseer and its Role for our Farms and Catchments

3:10 pm	Mark-John Bruwer	TRUST AND TRANSPARENCY IN AGRICULTURAL MODELLING: OVERSEER MODEL GOVERNANCE
3:20 pm	Al Taylor	INCORPORATING GRASS-FED CALCULATIONS AND REPORTING INTO OVERSEERFM: ADDING VALUE FOR FARMERS AND INDUSTRY
3:30 pm	Andrew Revill	IMPROVING CATCH CROP NITROGEN UPTAKE IN OVERSEERFM
3:40 pm	Jean-Paul Tavernet	INCORPORATING EFFLUENT POND METHANE REDUCTION TECHNOLOGY INTO OVERSEERFM: INTEGRATION OF ECOPOND™
3:50 pm	Andrew Revill	UNLOCKING THE POTENTIAL OF AI IN OVERSEER: A PROOF-OF-CONCEPT
4:00 pm	Discussion	Q&A

Closing Remarks: 4:15 pm - 4:30 pm

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