

Position Title:	Statistician or Senior Statistician
Reports To:	Science Team Leader, Data Science
Direct Reports:	Nil
Group:	Digital Agriculture Innovation Centre of Excellence
Key Relationships:	Science Colleagues, Research Stakeholders
Location:	Ruakura (Hamilton), Grasslands (Palmerston North), Lincoln (near Christchurch) or Invermay (near Dunedin)

WHO WE ARE

We are passionate innovators, dedicated to making a difference to the future of New Zealand by delivering world-leading research and through complex problem solving across diverse agricultural areas. We are respected by the scientific community for thought-leadership, trusted by industry partners for the value we add to the sector, and admired by farmers and governmental stakeholders for all that we do to keep New Zealand at the forefront of global agricultural excellence.

We go beyond innovation to maintain AgResearch's role as a leading collaborator and contributor to New Zealand's worldwide agricultural reputation.

Our Vision is to drive economic prosperity by transforming agriculture while incorporating the fundamental concepts of sustainability, environmental responsibility and Vision Mātauranga.

POSITION SCOPE & PURPOSE

This role involves operating as part of multi-disciplinary project teams to deliver high-quality science outcomes relevant to agricultural industry priorities; and working with others to identify and convert opportunities into successful R&D proposals and outcomes.

As a Statistician, you will advocate statistical principles, working collaboratively with AgResearch scientists to provide expert advice on design of experiments, statistical methodologies and the interpretation of statistical findings. You will use your skills in analytical, conceptual and quantitative thinking in statistics to underpin and support scientific innovation and to develop data-driven solutions for New Zealand's agricultural sector.

This is a permanent position and located at either our Ruakura campus in Hamilton, Grasslands campus in Palmerston North, Lincoln campus near Christchurch or Invermay campus in Mosgiel, near Dunedin.



OUR STATISTICIANS

Our Statisticians work collaboratively with AgResearch scientists, as members of multi-disciplinary project teams, to deliver R&D solutions to New Zealand's agricultural sector. They contribute expert statistical consultancy in the planning, design, analysis and interpretation of experiments, trials and surveys. Our Statisticians:

- Provide day to day support to our science colleagues in their statistical queries
- Identify and provide appropriate solutions to one-off and ongoing statistical problems
- Contribute statistical expertise to research projects, as collaborators, from planning to publication
- Collaborate with AgResearch scientists, industry stakeholders and Treaty partners to identify opportunities for leveraging data to underpin scientific discovery for New Zealand
- Contribute to high-quality scientific publications and outputs through the application of innovative and/or specialised statistical and data science methods or techniques
- Keep abreast of relevant new statistical and data science methodologies and tools
- Provide thought-leadership in statistics and data science internally and externally

AgResearch's Statisticians are members of one of the three Data Science teams, and part of the wider Digital Agriculture Innovation Centre of Excellence.

KEY ACCOUNTABILITY AREAS

The Statistician shall be accountable in the following Key Result Areas:

1. Scientific Research

- Model, analyse and interpret scientific data
- Contribute to the design of statistically sound and biologically practicable experiments
- Identify and provide appropriate solutions to one-off and ongoing statistical and data science problems
- Contribute to high-quality scientific publications and outputs
- Keep abreast of relevant new statistical and data science methodologies and tools

In addition, for a senior appointment

- Collaborate with AgResearch scientists to identify opportunities for leveraging data and



technology to underpin scientific discovery in New Zealand

- Have full responsibility for the statistical aspects of scientific research projects, from the initial project planning phase through to data analytics and the dissemination of results
- Make a significant contribution to scientific research through the application of innovative and/or specialised statistical methods
- Demonstrate thought-leadership in statistical science and data science

2. Science Relationships

- Initiate and maintain strong relationships with science colleagues by pursuing internal networking opportunities, attending project meetings and participating in local campus activities and events
- Provide expert guidance and training on statistical and data science tools, methods and relevant software

In addition, for a senior appointment

- Promote the capability of our Statisticians, and the Data Science teams, and build new collaborations internally and externally
- Provide statistics and data science, scientific and operational leadership
- Support the advancement of the statistics/data science capability within the organisation, including providing expert guidance on data science tools, methods and software
- Mentor and coach junior statisticians, and serve as a conduit to other staff, sharing knowledge and helping others develop their skills

3. Teamwork

- Be a strong advocate for statistics
- Share specialist skills and knowledge within team members and the broader statistics and data science capabilities
- Assist with initiatives across the organisation and undertake strategic projects for your manager

In addition, for a senior appointment

- Use interpersonal skills to positively engage and lead staff
- Champion positive workplace relationships and a culture that influences organisational success and positively impacts on staff engagement

4. Health and Safety

- Follow AgResearch Health and Safety policies and procedures



PERSON SPECIFICATIONS

The person best suited to this position will possess the following:

EDUCATION & QUALIFICATIONS

- Postgraduate qualification in statistics or a closely related field, PhD will be preferable

In addition, for a senior appointment

- A minimum of 5 years' post degree relevant experience in statistics and collaborative research

CAPABILITIES & EXPERIENCE

- Knowledge of a wide range of statistical methods and tools;
 - Knowledge and experience of a variety of statistical and data science methods and techniques (e.g., GLMs, mixed models, multivariate analysis, machine learning, experimental design, etc.)
 - Ability to effectively use one or more computer languages (e.g., R, Python, Genstat etc.) to manipulate and draw robust insights from large and complex data sets
 - Skilled in data integration and data visualisation
- Demonstrated ability to understand collaborator's needs, provide a general statistical consultancy and to contribute to a research team environment
- Ability to build and maintain strong strategic relationships across the diverse range of groups and interests within the organisation
- Excellent communication, organisational and problem-solving skills
- Ability to prioritise workload and be able to handle multiple projects simultaneously
- An interest in working in the agricultural sector

In addition, for a senior appointment

- Expert and demonstrable knowledge of a range of statistical methods and tools
- Recognised by peers and collaborators for expertise in statistics and its application
- Ability to lead, and take full responsibility for, the statistical aspects of scientific research projects
- Ability to positively engage, mentor and lead others in the development of both statistical expertise and interpersonal skills



COMPETENCIES

Organisational wide competencies – these are the competencies determined by the organisation as critical to every role.	
Accountability	Accepts responsibility for one's actions regardless of outcomes.
Caring About People	Displays sensitivity towards the attitudes, feelings, or circumstances of others.
Developing People	Provides support, coaching, training, and career direction to others.
Integrity	Acts honestly in accordance with moral or ethical principles
Driving Results	Accomplishes goals, completes tasks, and achieves results.
Leveraging Diversity	Respects and values individual differences to obtain a desired effect or result.
Relationship Building	Develops collaborative relationships to facilitate current and future objectives.
Self-Development	Actively acquires new knowledge and skills to remain current with and/or grow beyond job requirements.
Role based competencies – these are the competencies required to perform this role.	
Thought-leadership	Be a strong advocate for statistics and seek opportunities to build new collaborations both internally and externally
Quality Science	Apply expertise in analytical, conceptual and quantitative thinking in statistics to enhance, support and underpin quality scientific innovation
Collaboration	Work collaboratively in multi-disciplinary and trans-disciplinary project teams
Technical Expertise	Expertly apply statistical methods and tools to acquire, clean, manage, explore, visualise, model and interpret data



Our Future

Bright Minds

Leading the Way

Significance

Balance