



**St Paul's Centre of Excellence for  
Agricultural Science and Business  
Developmental Evaluation**

2017 Full Report

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# INTRODUCTION

The focus for the developmental evaluation of the Centre of Excellence for Agricultural Science and Business /Agribusiness programmes at St Paul's Collegiate School in 2015/16 has been on developing an understanding of why students had chosen to be involved in the programmes and their perceptions of the programmes after completing two years of study. Students in each of programmes were surveyed at the beginning of each year to ascertain their reasons for being involved in one of the four programmes.

This report details the results of the 2017 survey completed with students in the Agricultural Science and Business and Agribusiness programmes at St Paul's Collegiate School and students involved in the Agribusiness programmes at the lead schools throughout New Zealand. Lead schools are those schools who are developing programmes that are similar to those that have been developed by St Paul's Collegiate over the last three years. These schools will have access to the range of Agribusiness standards that St Paul's Collegiate have developed, tested and had accepted by NZQA for implementation in 2018. Lead schools include, Christchurch Boy's High School, Columba College, Feilding Agricultural High School, John McGlashan College, Lindisfarne College, Mt Albert Grammar School, New Plymouth Boys' High School, Southland Boys' High School, Southland Girls' High School, St Cuthberts College and St Paul's Collegiate School.

The report provides details of the subjects taken in the previous year at school, time taken to make the decision to enrol in the course, sources of enrolment information, factors influencing enrolment decisions, subjects complementing programme subjects, demographics, respondent residential location, caregiver occupations and the likelihood that respondents will engage in occupations in agricultural related industries in the future, and what these might be.

## RESPONDENT DEMOGRAPHICS

Ten out of the 11 Lead schools participated in the survey. There were 87 respondents from St Paul's Collegiate School and the lead schools. Of these nearly 60% were male students. This suggests that agribusiness is certainly an option that is of interest and is seen to provide a range of career opportunities for both young men and women. As part of a further round of survey's it may be worth trying to ascertain which possible career options were preferred most by each group. This result was different to the St Paul's only surveys completed in the previous two years where 75% of respondents were male.

### School responses

John McGlashan and Columba College

14 surveys distributed and 7 completed

Lindisfarne College

16 surveys distributed and 14 completed

St Cuthbert's College

22 surveys distributed and 2 completed

Fielding Agricultural High School

34 surveys distributed and 25 completed

Southland Girls' High School

15 surveys distributed and 6 completed(female)

New Plymouth Boys' High School

15 surveys distributed and 5 finished (male)

Mt Albert Grammar School

23 surveys distributed and 2 completed

Christchurch Boys' High School

30 surveys distributed and 15 completed (male)

St Paul's Collegiate School

102 surveys distributed and 17 completed

## **Respondent Residential Location**

Just over 70% of respondents lived in rural areas. This is a similar proportion to the St Paul's only surveys completed in the previous two years (70% in 2015 and 80% in 2016).

## **Respondent Caregivers working Agricultural Industries**

64% of respondents had caregivers working in agriculture with 25% of respondents having caregivers working in agribusiness. There were somewhat smaller numbers working in agricultural science (11%). Again, these responses are somewhat different to the previous St Paul's only surveys in 2015 and 2016 where Agriculture based occupations were: 87% in 2015, 70% in 2016; Agricultural Science 8% in 2015, 0% in 2016 and Agribusiness 20% in 2015 and 10% in 2016.

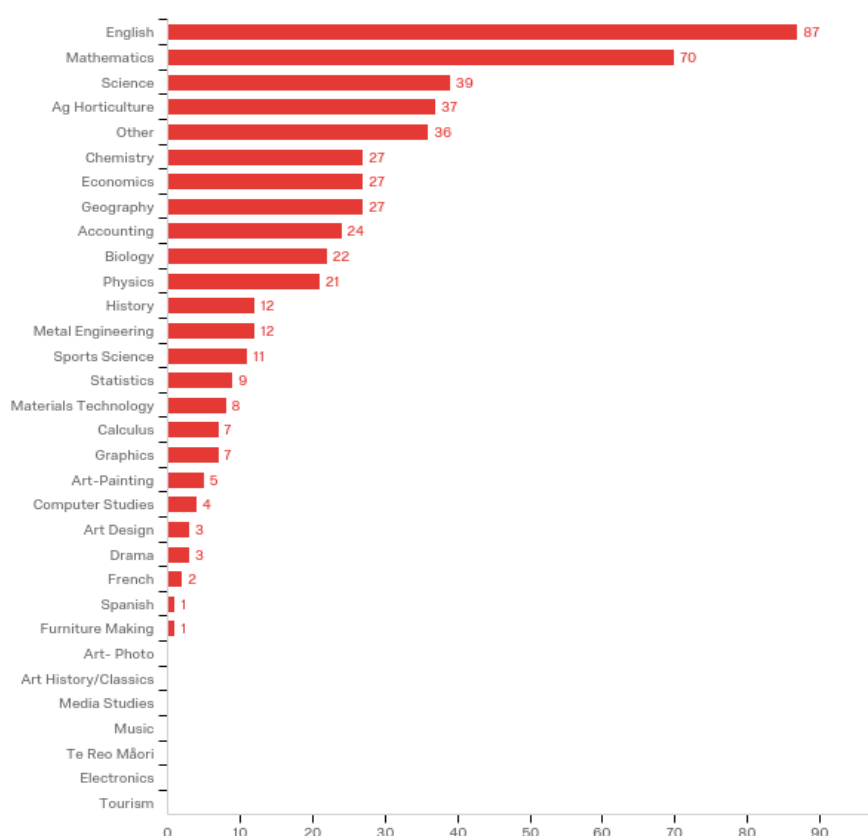
# FINDINGS

## Subjects completed in 2016 prior to enrolment in the Agribusiness Programme

Figure 1 indicates that most of the respondents had taken English and Maths in the year prior to joining the agribusiness programme and significant numbers had taken Science, Ag Horticulture, Chemistry, Economics, Geography Accounting, Biology and Physics. These subjects provide a sound background to complete standards with both a Science and Business focus in the Agribusiness programme.

This combined data collected in the lead schools and St Paul's surveys indicates that students had taken a similar range of subjects to those that St Paul's students had taken in 2015 and 2016, with one exception, that being the large numbers overall having taken Ag Horticulture in the lead schools.

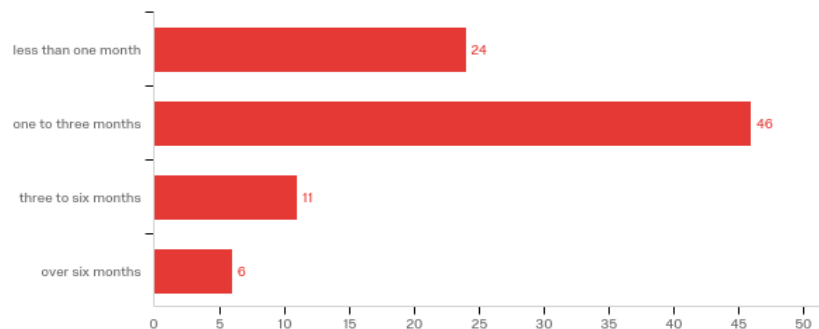
Figure 1: Subjects Completed in 2016



## Time taken to consider enrolling in the Agribusiness Programme

Figure 2 indicates that the majority of students took between one and three months to decide to become involved in the Agribusiness programme. This was similar to the responses in the St Paul's surveys in 2015 and 2016.

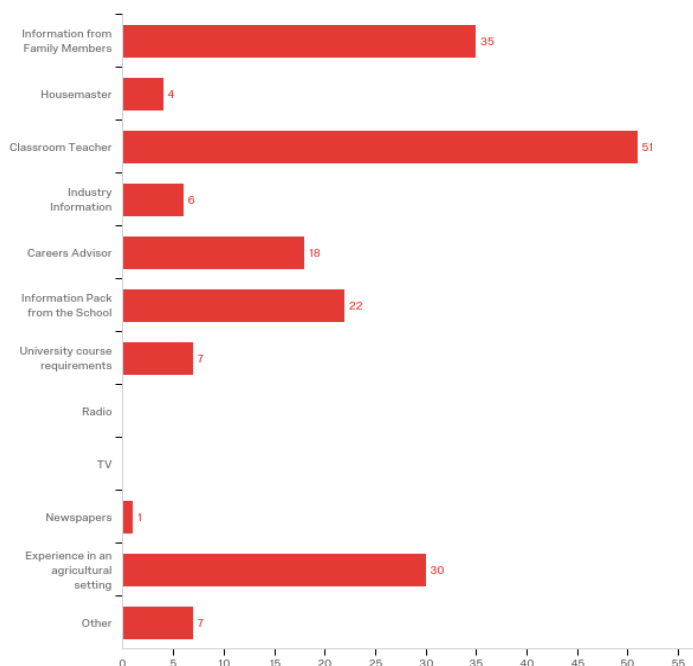
Figure 2: Time Taken to make the decision to Enrol in the Agribusiness Programme



## Sources of Information used when deciding on whether to become involved in the agribusiness programme

Figure 3 indicates that there are a number of ways students sought information about the programme. The ways they used included information from a family member, discussions with a classroom teacher, the careers advisor and an information pack that had been provided by their school. Discussions with a classroom teacher and family members dominate in each situation. Interestingly compared with the St Paul's only research significant numbers indicated that their choice to be involved in the programme was influenced by their experiences in the agricultural sector.

Figure 3: Sources of Information used to make the decision to enrol in the Agribusiness Programme

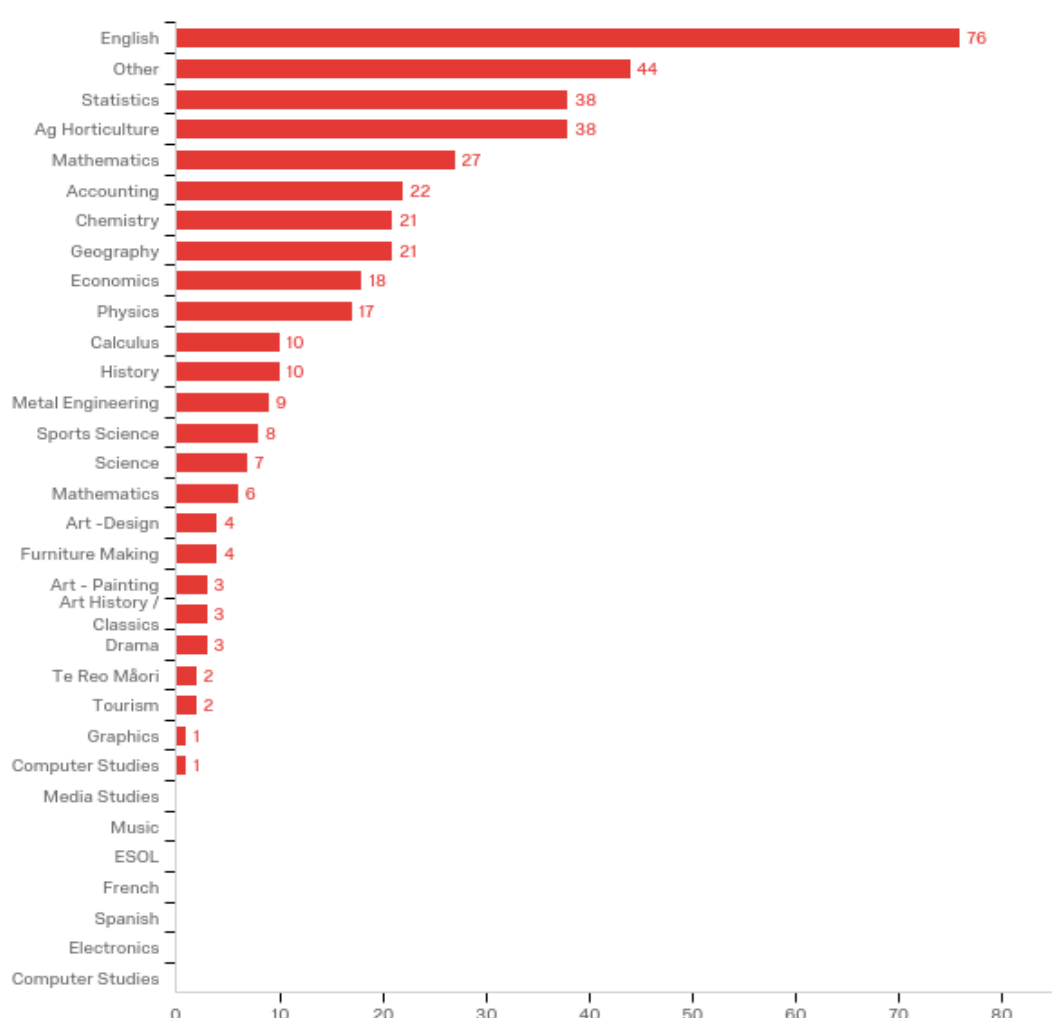


## Factors respondents considered most important in their decision to enrol in the Agribusiness Programme

The factors that respondents considered to be most important in the decision to enrol in the Agribusiness programme were to improve future job opportunities and to improve their chances of earning more. The chance of getting into a university course in agriculture was seen to be enhanced through students being involved in the programme. Many students indicated that their interest in agriculture and developing their agricultural knowledge further along with the range of standards that were available were also important factors in their decision to enrol. The least important factors for students were the need to develop agricultural skills and the fact that their friends were going to enrol in the course.

## Courses studies in conjunction with the Agribusiness Programme in 2017

Figure 4: Courses Studied in 2017 in Conjunction with the Agribusiness Programme





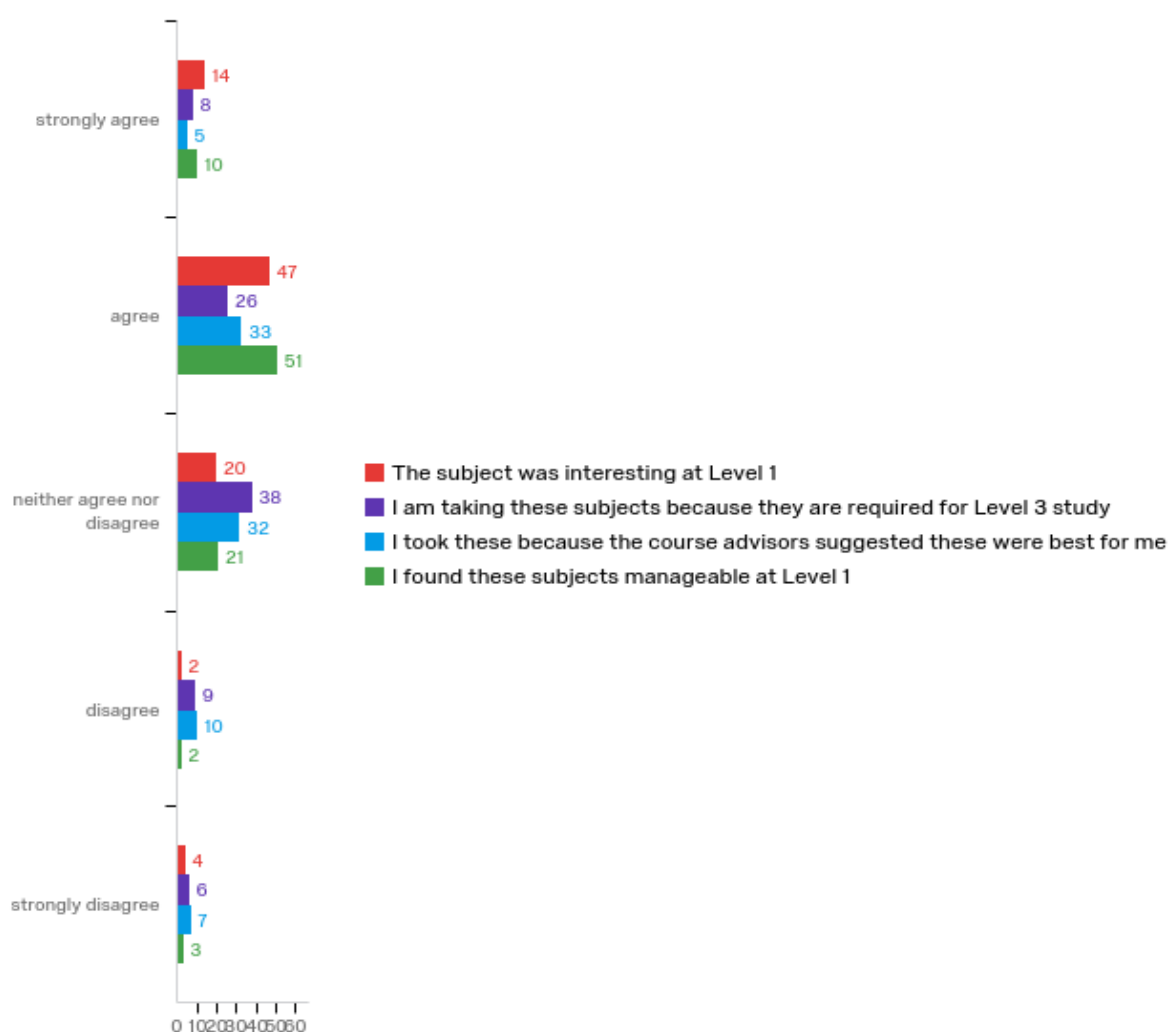
Responses indicated that most of the students in the programme took English and approximately half the respondents took Statistics, Ag Horticulture and Mathematics with approximately one third of respondents taking Accounting, Chemistry and Geography.

The biggest difference between the responses collected from the St Paul's/lead schools survey in 2017 and the original surveys in 2015 and 2016 at St Paul's were the large numbers in the lead schools choosing to be involved in their school's Ag Horticulture programme and a significant group of respondents having chosen Geography and Accounting in the combined survey compared with the St Paul's surveys.

## Reasons students chose certain subjects to complement the standards in the Agribusiness Programme.

Respondents gave a number of reasons why they had chosen to take particular subjects to complement the Agribusiness programme (Figure 5). 70% of the students chose the subject because they had found it interesting at Level 1 and they had found it manageable at that level. Approximately 50% had chosen the subject because it was needed for Level 3 study and they had been advised to take the subject by their course advisors. These responses were very similar to those given by those in the original St Paul's only surveys.

Figure 5: Reasons for Choosing the Subject to Complement the Agribusiness Programme



## **The knowledge skills and understanding respondents wished to develop as a result of having completed the programme.**

Students were asked what knowledge and skills they wanted to develop. They provided written responses. The range of responses covered the following points:

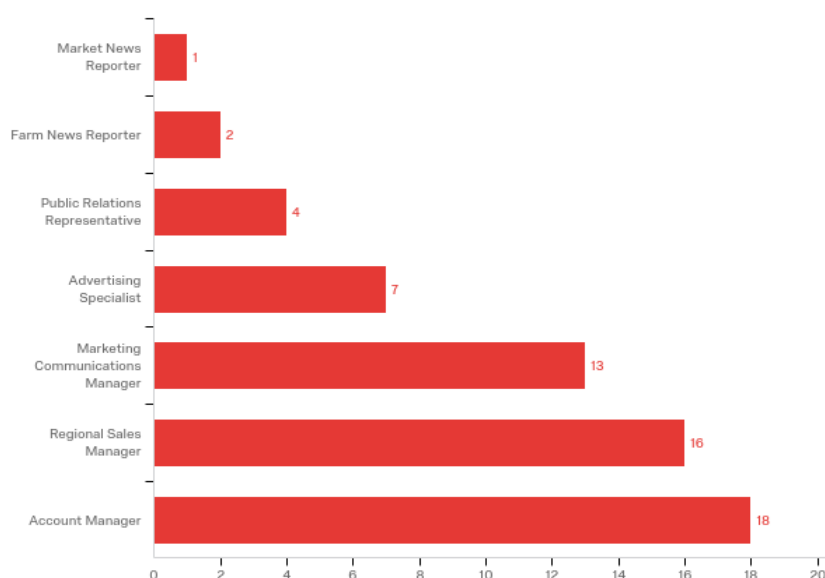
- Know what happened in the agricultural sector and not just on the farm.
- Develop an understanding of what the agricultural sector was like and how important it was likely to be like in the future.
- Understand agribusiness from an economic and environmental perspective.
- Understand the accounting side of an agribusiness programme.
- Learn past the farm gate the ins and outs of the agricultural sector.
- How to manage the paper work of a farm so not to have to employ an accountant.
- Understand the finances around agriculture.
- Understand more about the gateway to business at university.
- Further their understanding of the agricultural sector through learning about the systems that are currently in place, the processes used in the industry and its impact on the New Zealand economy.
- Understand how to get into the industry.
- Understand the importance of future proofing to the industry and the need to control emissions.
- Develop a better understanding of the food sector related to agriculture.
- Develop a large range of skills that they didn't have previously. This might be especially the case in accounting and economics.
- Develop a knowledge of the future prospects for farming.
- Develop knowledge of how to farm more sustainably.

## **The likelihood of choosing a career in an agriculture related industry**

Responses to this question indicated that nearly 75% of respondents in the combined St Paul's/lead schools survey were likely to choose a career in an agriculture related industry. This can be compared with the St Paul's only surveys in 2015 and 2016 where 80% of respondents indicated that they were likely to choose a career in an agriculture related industry.

## Possible career paths for respondents in different sectors of Agriculture and Agribusiness.

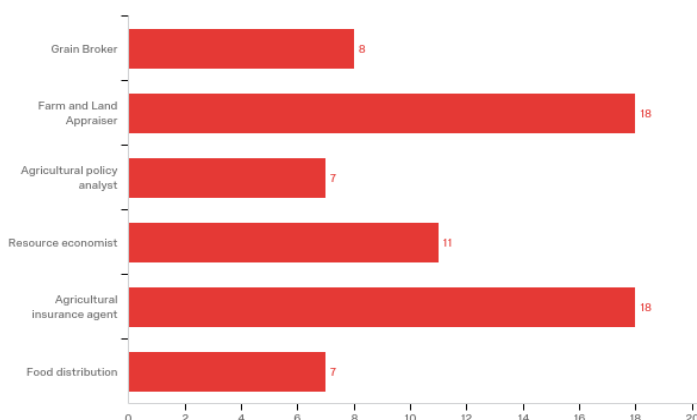
Figure 7: Marketing and Communications



Of those choosing to consider employment in marketing and communications relating to agricultural industries, the most popular options were marketing and communications managers, regional sales managers and account managers. Many more in the combined St Paul's lead school survey were considering the possibility of account manager than had been the case in the St Paul's only survey in 2015 and 2016, one in each case.

## Agricultural Economics

Figure 8: Agricultural Economics



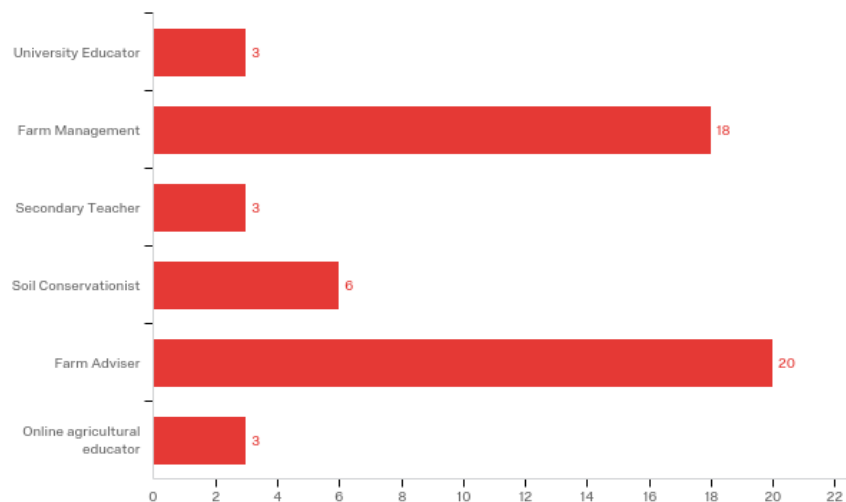
The most popular options for those who were considering a career in agricultural economics were farm and land appraiser, and agricultural insurance agent. The St Paul's only survey had produced similar results with the exception of a new interest highlighted in the combined survey where respondents indicated an interest in becoming a resource economist, suggesting respondents interest in using resources in a sustainable manner.

## Agricultural Education

The biggest numbers of the respondents considering a career in agricultural education were interested in training in Farm Management and as Farm Advisers.

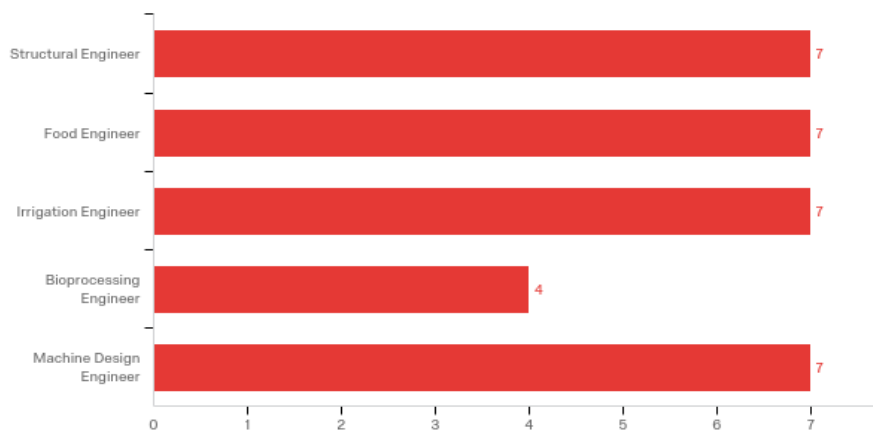
This was a similar response to that given in the previous St Paul's only surveys.

Figure 9: Agricultural Education



## Agricultural Engineering

Figure 10: Agricultural Engineering

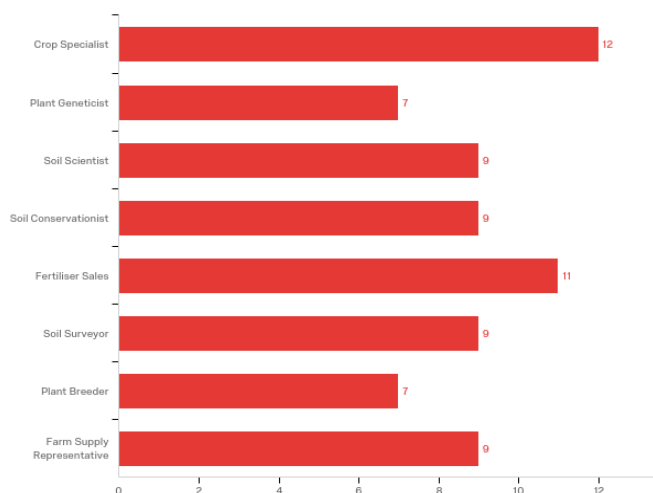


Those wishing to pursue a career in agricultural engineering were interested in a range of engineering opportunities including working as a structural engineer, food engineer, irrigation engineer and machine design engineer. Responses in the St Paul's only surveys had indicated more focus on food engineering and machine design engineering.

## Agronomy and Soils

Those choosing a career relating to agronomy and soils were interested in a range of different options. These included being a crop specialist, fertiliser sales representative, soil scientist, soil conservationist and or a soil surveyor. The category choices in the combined survey were very similar to the category choices in the combined survey, although the opportunity to become a crop specialist was most popular.

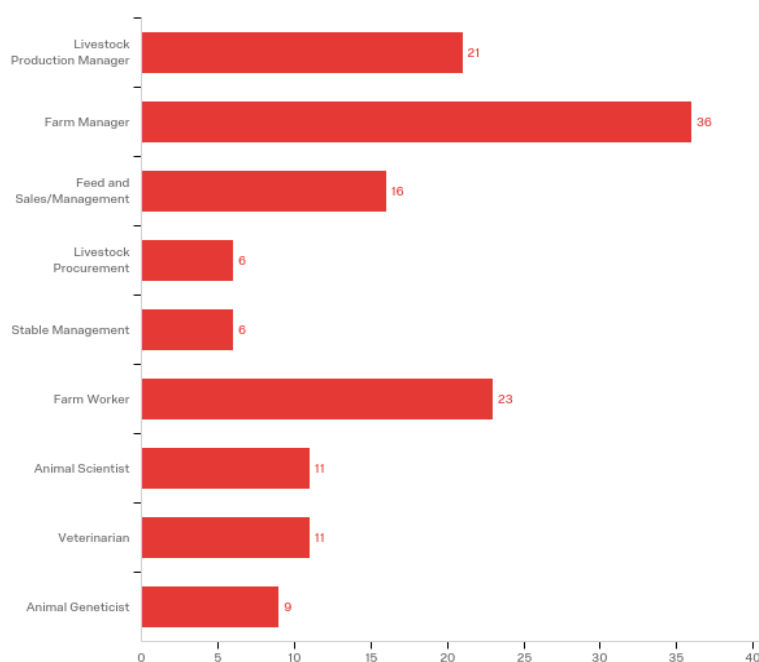
Figure 11: Agronomy and Soils



## Animal Sciences

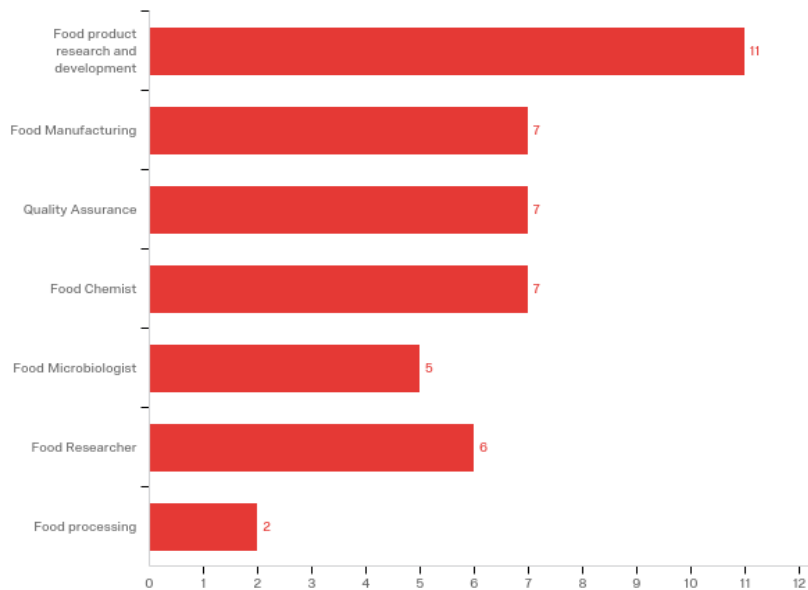
The most popular career options in animal sciences identified by respondents were a livestock production manager, farm manager and farm worker. There were smaller numbers showing an interest in animal science, veterinary science and feed sales management. The category choices of respondents in the St Paul's only surveys were very similar to the combined survey.

Figure 12: Animal Sciences



## Food Sciences

Figure 13: Food Sciences



The most popular career option in food sciences was food product research and development. Several other categories such as food manufacturing, quality assurance and food chemistry also drew interest from respondents. The category choices of the St Paul's only surveys were very similar to those in the combined survey.

## SUMMARY

The results of the combined St Paul's/Lead schools survey provided consistent results across schools. There were a number of areas in the combined survey results where there were differences. These have been highlighted in the preceding graphical and written analysis. Such differences are likely to indicate the differing expectations of a larger group of schools from a range of different geographical regions. It might be that we could expect that the range of different standards that schools from different regions choose to complete will be somewhat different and reflect the agricultural and employment opportunities within the region. Some regions might lead to schools offering a range of standards that have a focus on agribusiness for certain types of agricultural production. Here they will be able to draw upon the case examples within the region. School in regions with major commercial centres surrounding agricultural productive land might lead to programmes with standards that have a more agribusiness/agri-science focus than those in a predominantly rural area where the standards offered might be more agricultural production focussed.