

**the ARCHIBULL PRIZE**

# 2017 ANNUAL REPORT



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# THE 2017 ARCHIBULL PRIZE ANNUAL REPORT

“THE ARCHIBULL PRIZE IS AN OUTSTANDING EXAMPLE OF STEAM AND PROJECT BASED LEARNING. THE BLOG ENGAGES STUDENTS USING NEW MEDIA AND TECHNOLOGY, WHILE THE ARTWORK EXCITES THEM ABOUT VERY IMPORTANT ISSUES THAT FACE THIS NEXT GENERATION. THE ARCHIBULL PROVIDES THEM WITH AN UNDERSTANDING OF AUSTRALIAN AGRICULTURE AND THE VITAL ROLE IT PLAYS BOTH LOCALLY AND GLOBALLY. THE PAINTED ARCHIE IS A WONDERFUL REMINDER OF THE COLLABORATIVE EFFORT A SCHOOL CAN ACHIEVE AND IS A TANGIBLE ARTWORK TO REMIND STUDENTS THAT THEY ARE 100% THE FUTURE AND WHAT ARE THEY DOING ABOUT IT.”

INEL DATE SECONDARY SCHOOL TEACHER ST RAPHAEL CATHOLIC SCHOOL

## EXECUTIVE SUMMARY

Now in its seventh year [The Archibull Prize](#) continues to be a strong educational and agricultural tool, building lasting relationships between farmers and the community.

Whilst showing the community where their food and fibre comes from remains an important outcome The Archibull Prize goes much further than this, promoting a well-rounded understanding and appreciation of Australian agriculture not only in students but teachers, families and the community.

Our feedback shows just over 1000 students participated directly in the 2017 Archibull Prize. Teachers estimated the ripple effect attracted 16,000 students with the knowledge of The Archibull in their school. And that is before they took their message home to family and the community through school newsletters, social, radio and print media.

The Archibull Prize explores the reality of modern farming, both the challenges and opportunities and how our farmers are innovators by nature and necessity. It showcases the use of cutting-edge technology, research and science. Students are encouraged to look beyond the stereotypical image of a farmer as an old man in overalls and see the young, articulate farming professionals who are embracing the boundless opportunities agriculture offers and showcasing the plethora of careers available that do not stop at the farm gate.

As an innovative educational program, The Archibull Prize changes the way teachers think. Teachers have a major impact on childhood learning. When they become advocates for agriculture, what starts as a ripple effect through The Archibull Prize, can become a tidal wave over a lifetime career span. It is a program that incorporates multiple learning areas and encourages collaboration, and it consistently generates long-term engagement with our farmers.

The strength of The Archibull Prize comes from an intensive evaluation process that provides measurable quantitative and qualitative outcomes from both an agricultural and educational perspective and shows The Archibull Prize is an increasingly relevant and valuable resource for schools.

As part of the evaluation process our supporting partners are provided with exclusive access to cutting edge market research through our extensive entry and exit surveys.

The Archibull Prize increases knowledge and appreciation of:

- Modern farming practices.
- How food and fibre travels from paddock to plate/field to fibre.
- Diversity of careers in agriculture.
- Cutting edge science and technology in agriculture.
- The challenges of farming in 21st century including climate change and the opportunities for the agriculture sector to power the nation through renewable energy technologies.
- Biosecurity threats and how to mitigate them.
- The social, environmental and financial value of agriculture to healthy communities.

The Archibull Prize inspires educational leadership and excellence in:

- Supporting teachers to implement cutting edge future-focussed approaches to teaching and learning through project-based learning across curricula.
- Supporting teachers to implement Sustainability Education linked to State, Federal and International curriculum directions i.e. the Australian Curriculum Sustainability Priority and UN Sustainable Development goals.
- Creating significant gains for students by engaging them in learning – students say they want to come to school; teachers see students achieving the highest standard possible for their abilities.
- Enabling students to gain 21st Century skills i.e. teamwork, cooperation, planning, organising, creative problem-solving, communication, critical thinking, researching, active citizenship, initiative, enterprise, self-management, and capabilities in digital technologies and multimedia.

## PROGRAM SNAPSHOT

Picture You in Agriculture (PYiA) programs are designed to connect farmers and communities and empower young people to create the bright future we all deserve.

We design and deliver programs that:

- Connect farmers and the community through partnerships between young people in agriculture and young people living in urban landscapes.
- Use education, art and technology to engage students in 21st Century agricultural experiences.
- Encourage and develop dynamic two-way conversations between producers and consumers.

Under the banner of [Art4Agriculture](#) our signature programs are [The Archibull Prize](#) and the [Young Farming Champions](#) (YFC) program.

The Archibull Prize (Archie) is a world first<sup>1</sup>. The competition uses art and multimedia to engage school students in genuine farm experiences, and gain knowledge and skills about the production of the food they eat, the fibres they use, and the environment they live in.

Young Farming Champions (YFC) participate in The Archibull Prize by visiting and mentoring schools, sharing their stories and insights into contemporary farming practices and inspiring students to consider careers in agriculture.

The competition theme 'Feeding, Clothing, and Powering a Hungry Nation is a Shared Responsibility' celebrates the role Australian farmers play in feeding and clothing Australian families and many other families around the world. The average person doesn't consider the resources required to keep a city well fed let alone the world! The program is intent on telling this story.

To compete for The Archibull Prize, each school is allocated a farming industry (either dairy, grains, wool, sheep and cattle, cotton, eggs, pork or horticulture) and is invited to complete three challenges exploring and communicating the students' vision for a sustainable future. Along with their creative Archies, students develop multimedia presentations and explore issues such as biosecurity, climate change, land and water use and renewable energy.

The tasks are to:

1. Use a blank life-size fibreglass Cow (Archie) to create an artwork about an allocated farming industry, the farmers who produce the food or fibre, and how this commodity is being produced sustainably.
2. Produce a blog documenting the journey of the artwork and student learnings.
3. Create a multimedia animation or infographic around the farming industry they are investigating that has a powerful message and call to action.

Schools are supported in their projects by local experts and industry resources, which have been created by the various industry bodies the students are investigating.

## TARGET AUDIENCE

The target audience is teachers and school students in upper primary and secondary schools and their wider circle of friends and family.

## WHY IS THE PROGRAM IMPORTANT?

The Archibull Prize entry surveys consistently show that students identified their knowledge of the agriculture sector as being very limited.

Students struggled to identify careers in the sector beyond farming related activities despite 82% of careers in agriculture being beyond the farm gate.

Students also identified that while they were aware of climate change, renewable energy and biosecurity they had little understanding of the impact on their lives let alone the broader community.

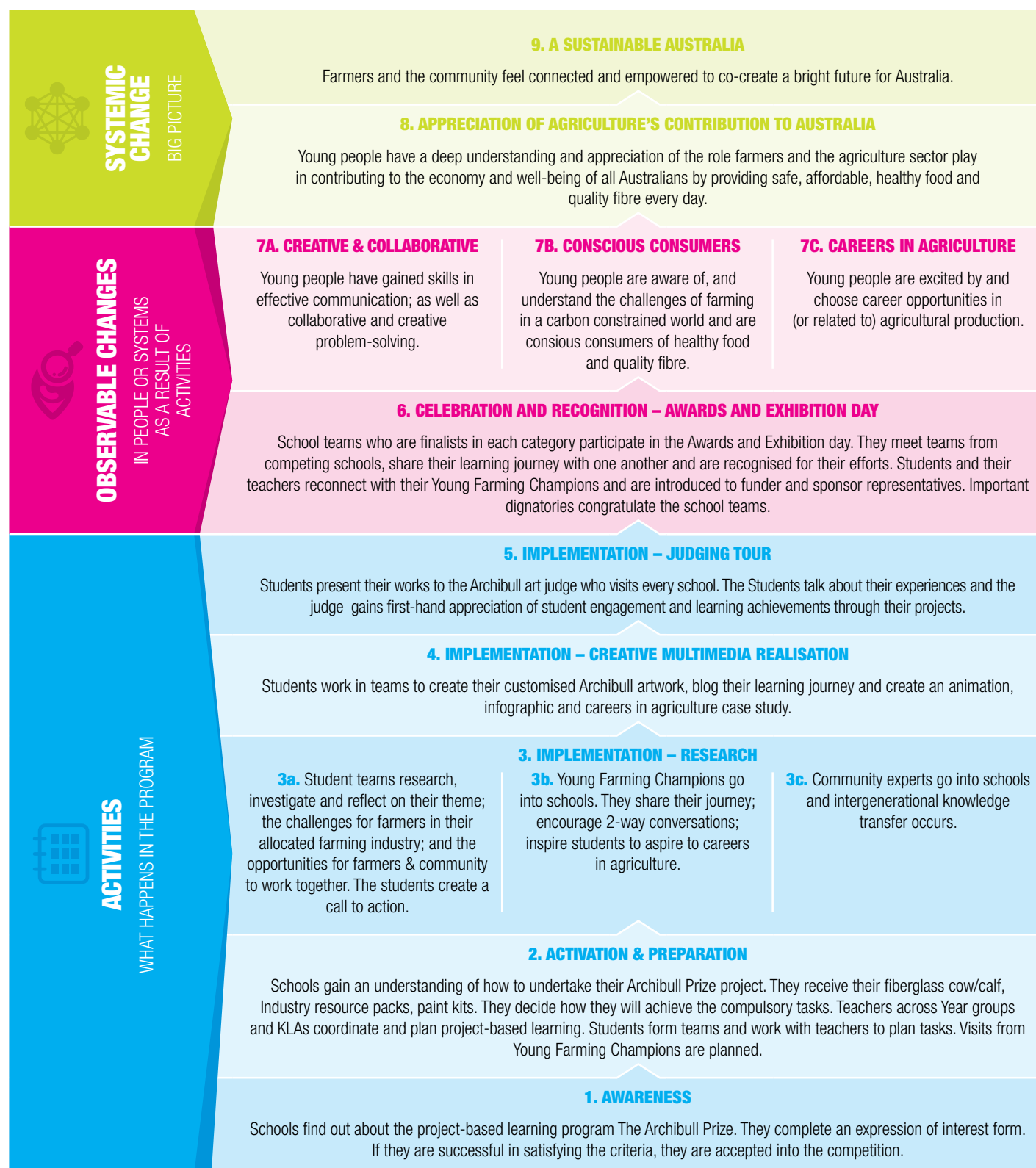
## PROGRAM OBJECTIVES

The objectives of The Archibull Prize are to use creative arts and multimedia to foster two-way conversations between farmers and the community and engage urban and rural school students to:

1. Expand their understanding and appreciation of how food and fibre is produced and the journey it takes to feed and clothe them.
2. Understand the challenges of farming in the 21st century and their role in supporting our farmers to produce safe, affordable and nutritious food, and quality natural fibres.
3. Consider agriculture related careers.

<sup>1</sup> Lorraine Larri of Renshaw Hitchens external evaluator of The Archibull Prize was invited to present the program at World Environmental Education Congress in Canada in Sept 2017. 58 countries were represented, and delegates acknowledged The Archibull Prize as a "world first".

# THE ARCHIBULL PRIZE HIERARCHY OF INTENDED OUTCOMES





## PROGRAM OUTCOMES

Students and teachers alike benefit from an increased awareness of issues facing agriculture and that these issues are also important to the community. They begin to understand the complexities of sustainability including climate change, renewable energy, biosecurity and the role agriculture plays in the wellbeing of all Australians. They realise where their food, fibre, and in some cases clean energy power, comes from and they are empowered to suggest actions to better these outcomes. At the end of the program students see themselves as part of the solution to a better world.

The program deliverables include:

### INNOVATIVE COMMUNICATION AND ADVOCACY TOOLS.

The program design allows agriculture to be imbedded into the school curriculum across subject areas it hasn't been traditionally able to reach.

*"Almost all departments at our school contributed in some way to create our Archibull Prize entry. So many staff wanted to be part of this experience and contribute. Some offered resources such as paint and material. Some worked with students to gather information and create items for the blog. Some offered themselves to assist with students and gave up their time. The sport department even organised the timetable so that we could have one lesson a week with a large group of students working on our Archie."*

- Laura Perkins Secondary School Teacher

YFC play an important role in educating students and their teachers about contemporary farming practices and career pathways in agriculture. Each school is teamed up with a YFC representing the industry sector they are studying.

*"Our Young Farming Champion Laura's visit was wonderful for the kids and really helped us at the beginning. She gave us excellent information and was able to fill in the gaps in the industry resources in a way the students understood. It was a new and exciting learning experience for them."*

- Sarah Robinson Little Bay Community of Schools

*"Our YFC Daniel Fox had many innovative ideas about farming in the future. It was very interesting to hear what he did on his farm and how he plans to become more sustainable for the future. His ideas made me excited about how we can make farming more sustainable in the future."*

- Secondary School Student

*"We met Ms Stephanie Fowler. She inspired me the most. I am quite interested in science, so her presentation was quite memorable for me."*

- Secondary School Student

The program also provides an innovative and memorable vehicle for our collaborating partners to build long term relationship with the schools and their communities.

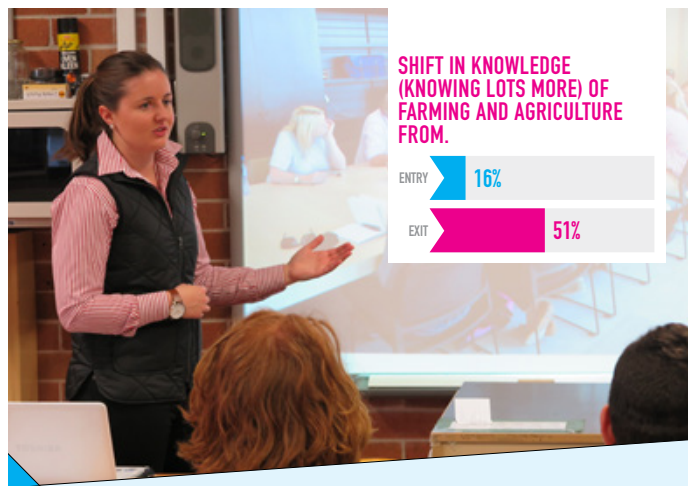
*"It is important to be supported by organisations such as Aussie Farmers Foundation, who are rural focused and understand issues facing rural communities; and why it is also important for rural students to understand these issues."*

- Jillian Reidy The Henry Lawson High School

Watch the video [HERE](#)

## QUANTITATIVE DATA AND QUALITATIVE EVIDENCE.

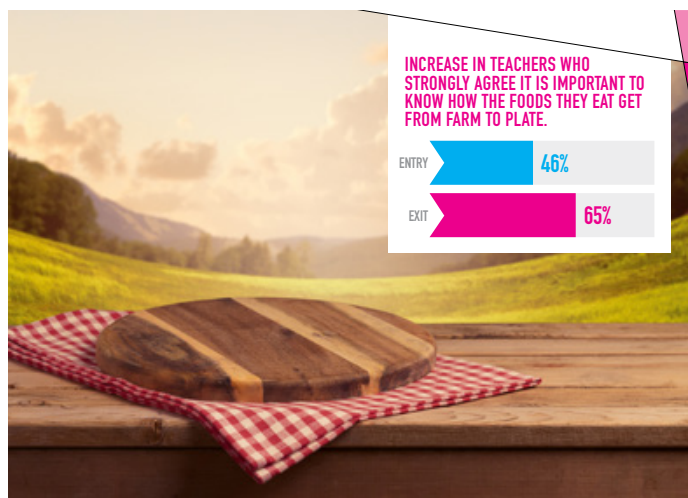
The strength of The Archibull Prize comes from an extensive evaluation process, conducted by independent evaluator, Lorraine Larri of Renshaw Hitchens, that provides measurable quantitative and qualitative outcomes. Year in year out the evaluation shows The Archibull Prize is a relevant and valuable program for increasing both teacher and student awareness and appreciation of the paddock to plate process.



*"Findings from 2017 Archie indicate this program is changing attitudes about agriculture very positively for both students and their teachers. The most dramatic shift has been in teacher attitudes. This is a startling and significant finding. It shows the Archie has demonstrated to teachers the ways in which farmers care about the environment and their animals. This cohort of teachers now have the understanding and capacity to engage their current and future students in these understandings towards greater valuing of our farmers and agricultural industries."*

- Lorraine Larri Renshaw Hitchens  
2017 Archibull Prize External Evaluation

Teachers have a major impact on childhood learning. When they become advocates for agriculture what starts as a ripple effect through The Archibull Prize can become a tidal wave over a lifetime career span.



## CELEBRATION AND RECOGNITION — AWARDS AND EXHIBITION DAY

School teams, their artworks, Young Farming Champions, and special guests (invited dignitaries and program partners) come together at an Awards and Exhibition Day held at Sydney Olympic Park in November each year. Students share their learning journeys with each other and are introduced to our special guests.

WATCH COSTA'S SPEECH AND PRESENTATION OF THE GRAND CHAMPIONS [HERE](#).

In the lead up to The Archibull Prize awards ceremony members of the public were invited to vote for their favourite Archie. The People's Pick isn't just about finding out if the community agrees with the official judge. Its key objective is to provide an opportunity for the world to see the visionary agricultural themed Archie artworks.

This year almost 185,000 people across the globe viewed the People's Pick blogpost and the students' artwork, and more than 65,000 people voted. The voting was driven by participating schools via print media, radio, social media including Facebook and Twitter, school newsletters, online blogs and videos and through local politicians.





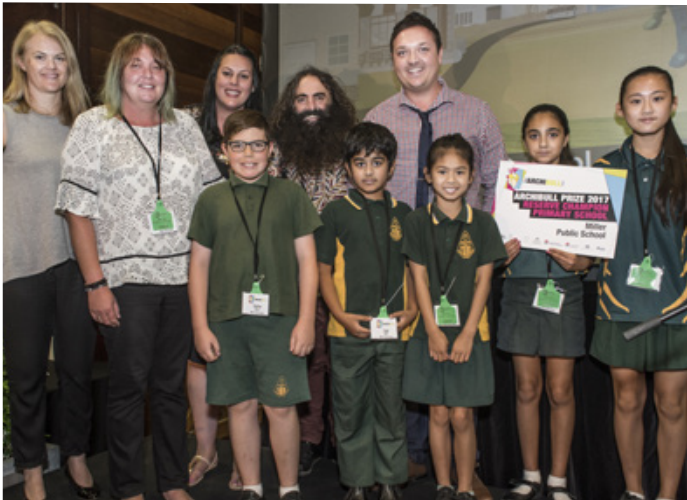
# PROGRAM PARTNERS

THANK YOU TO THE ARCHIBULL PRIZE SUPPORTING PARTNERS  
— IT CAN'T HAPPEN WITHOUT YOU



## SPECIAL THANKS TO

HANCOCK PASTORAL, RAS OF NSW, PROFESSOR JIM PRATLEY, FARMERS FOR CLIMATE ACTION, ANDREWS MEAT AND HUNTER AND CO FOR THEIR SUPPORT OF THE ARCHIBULL PRIZE AWARDS DAY.



Jane Thomas from Aussie Farmers Foundation with Miller Public School winners of Reserve Champion Primary School



Emily King from Australian Wool Innovation presenting the award for Best Secondary School blog to Blacktown Girls High School



Kylie Schuller Andrews Meat presenting the award for Best Secondary School Animation to Blacktown Girls High School



Cameron Archer Primary Industries Education Foundation of Australia presenting the Professor Jim Pratley Award to Beaudesert State High School





Greg Vakaci NSW Food Authority presenting NSW Department of Primary Industries Biosecurity Award to Little Bay Community of Schools



Lindy Hyam Chair Hunter Local Land Services presenting Farmers for Climate Action Award collected on behalf of the winner Katie Brown



Adam Giles from Hancock Pastoral with Winners of Most Outstanding Student Awards



Robert Ryan President of the RAS of NSW Council inducting Gwynneville Public School into the National Agriculture Day Hall of Fame



Ryan Hunter of Hunter and Co presenting the Moo Mooovers Pick Award to Calvary Christian College Carbrook



Adam Giles from Hancock Pastoral with Winners of National Agriculture Day Careers Competition



# THE ARCHIBULL PRIZE 2017 HALL OF FAME

IT IS WITH GREAT PLEASURE WE ANNOUNCE THE WINNERS OF THE ARCHIBULL PRIZE 2017

WATCH THE GRAND PARADE VIDEO [HERE](#)

TO SEE ALL THE CATEGORY WINNERS VISIT THE 2017 HALL OF FAME [HERE](#)

## GRAND CHAMPION

CALVARY CHRISTIAN COLLEGE SENIOR SCHOOL CARBROOK CAMPUS, QLD



## RESERVE GRAND CHAMPION

ST RAPHAELS CATHOLIC SCHOOL COWRA, NSW





**CHAMPION PRIMARY SCHOOL 2017**  
LITTLE BAY COMMUNITY OF SCHOOLS CHIFLEY, NSW



**RESERVE CHAMPION PRIMARY SCHOOL**  
MILLER PUBLIC SCHOOL MILLER, NSW





## YOUNG FARMING CHAMPIONS

The Young Farming Champions (YFC) are identified youth ambassadors and future influencers working within the agriculture sector. The YFC demonstrate passion for their industry, while providing real life examples to young people who may have never considered a career in agriculture. Because they are young they can relate to students and are adept at breaking down stereotypes of farming and agricultural careers.

Taking part in the YFC program involves undertaking a series of Sydney based workshops, under the mentorship of some of Australia's finest communication, marketing and professional development experts.

The program's focus is developing confident, independent, reflective thinkers who can share their story and their personal experiences, while voicing their own opinions about agricultural issues in their industry and more broadly.

The program equips and prepares the participants for that often very daunting experience: of standing up to be counted, even in difficult circumstances. The YFC leadership development model is providing the rock-solid foundation and pivotal stepping stones as part of a journey to lead agriculture's next generation.

Through these workshops and the program's lifetime mentorship opportunities, the YFC are also equipped with unique insights into all aspects of the agricultural supply chain as well as consumer attitudes and trends.

Young Farming Champions (YFC) played an important role in educating students and their teachers about contemporary farming practices and career pathways in agriculture. Each school had the opportunity to team up with a YFC representing the industry sector they were studying.

### 86% OF TEACHERS PARTICIPATING IN THE ARCHIBULL PRIZE CONSIDERED THE YFC VISIT WAS VERY WORTHWHILE.

Here are some comments from teachers about the value of the YFC visit:

*"The Young Farmer visit put things in perspective. Students benefited from the young farmer visit and the first hand information."*

*"I was surprised by how engaged students were with our Young Farming Champion visit. They wanted to go back and research points that he had mentioned after the visit."*

*"Engaging with the Young Farming Champion has inspired and increased relevance of agriculture as a career opportunity. Students were shocked by how many career options there are."*

*"After the YFC visited, students were talking more about how the pork industry is more than just raising pigs or pork products."*

88% of students who responded to the exit survey said they met a Young Farming Champion. As in previous years, students said this was a highly memorable and significant experience.

They were impressed by the:

- Information presented (i.e. objects, facts, knowledge, technology, sustainability);
- Specific industry details (i.e. cotton, wool, pigs, sheep, crops).

In educational terms, this equates to strong evidence of emotional and cognitive engagement. In following Word cloud the larger the word in the visual the more common the word was used by the students.



Student words describing what excited or interested them about meeting a Young Farming Champion, 2017.

THE SAMPLE BELOW OF STUDENT COMMENTS SHOWS HOW EACH YEAR THEY CONTINUE TO BE IMPRESSED BY THE PROFESSIONALISM, KNOWLEDGE, AND PASSION OF THE YFCS.

### CATTLE

*"How passionate they were about being a farmer. They were so cheerful and willing to answer any questions I had."*

### COTTON

*"The Young Farming Champion was really enthusiastic and loved to talk about the Cotton Industry. Her enthusiasm for it was infectious. I was extremely interested about the amount of research that is put into this industry, as well as the variety of jobs that all stem from cotton."*

*"The fact that they accomplished their dream of working in the farming industry, and also that they had the opportunity to travel with their work and meet new people."*

*"There are a wide range of roles and careers to support the cotton industry, whether it is scientifically, mathematically, agriculturally, or mechanically, everyone can help in the cotton industry."*

### GRAINS

*"Daniel Fox, our young farming champion expressed his views on the future of agriculture and his family's farming practices, enhancing the sustainability of their property. I was excited to hear about some of their new technologies such as companion cropping and zero till sowing."*

*"The Young Farming Champion, Daniel Fox had many innovative ideas about farming in the future. It was very interesting to hear what he did on his farm and how he plans to become more sustainable for the future. I liked his ideas about the use of companion cropping. His ideas made me excited about how we can make farming more sustainable in the future."*

*"Marlee Langfield taught us about biosecurity in the grain industry. We also met Ms Stephanie Fowler. She inspired me the most. I am quite interested in science, so her presentation was quite memorable for me."*

### WOOL

*"I was really interested to learn more about the wool industry as I was not very knowledgeable on this topic. The farmer was intriguing and educated me on how important the wool industry is in Australia. It was also great to learn from a farmer that was a girl."*

### DAIRY

*"Our Young Farming Champion was a Geneticist and she worked with animals to change the way they are bred to increase the amount of milk they give us."*

## THE ARCHIBULL PRIZE IN THE COMMUNITY

Educating our young people is the responsibility of the entire community, not just schools.

The Archibull Prize encourages schools, businesses, farming industries and communities to form partnerships to improve outcomes for young people and to recognise that by working together they can achieve far more than working alone.

Partnerships can lead to better morale among teachers and the better use of resources within schools, leading to improved education outcomes for young people. Business can also experience improved staff morale, better awareness of their industry and community recognition.

A highly rewarding example of the powerful impact of The Archibull Prize on communities is shown in this quote.

*"Bovinity has been a focal point of the school community and the entire town of Murwillumbah. Her staged travels throughout the town were published on WordPress and then transferred to the school Facebook account. Our following was very well received and highly talked about. We have had offers of additional help to the school farm and the show team from our tours around Murwillumbah. This school farm and parts of township were devastated by floods in 2017 and Bovinity has become a local icon. School cohesion and pride were the most important factors brought forward from the students. Bovinity is what our school needed after the floods. A little bit of silliness and tongue and cheek made the school and town smile. Her story is important to so many students and their families."*

- Murwillumbah High School Secondary Teachers David Anderson and Diana Martin.



Bovinity at the 2017 Murwillumbah Show

Each year the Alan Eagle Award is presented to the Archibull school that engaged with the community at the highest level. This year it was awarded to St Raphael's Catholic School in Cowra.

*"The engagement with the community is what made the program so enriching. We asked the (Indigenous group) Wahlan Warriors to present a workshop and it had an impact on our designs and gave us confidence that we were referencing the Wiradjuri appropriately. We even started using Wiradjuri words - such as the Bili Galari for the Lachlan River. We had Dr Southan, the CEO of GrainGrowers, do a presentation to the team and it was so interesting for students to listen to industry specialists and have conversations with professionals other than teachers. We also conducted a whole day Archibull Industry Excursion which involved visiting four local industries/farms. It certainly put our focus industry of grain in context."*

- St Raphael's Catholic School teacher Inel Date.



Sharon Eagle presents Ben Price from St Raphael's Catholic School with the Alan Eagle Award

## THE ARCHIBULL PRIZE PUTTING AGRICULTURE ON THE CURRICULUM

Our evaluation surveys have shown The Archibull Prize allows agriculture to be embedded into all key learning areas, and this was evidenced throughout the program with not only art but food technology, geography, technical and applied studies and history teachers contributing to the project. In fact, the surveys show 83% of teachers said they would use learning activities about agriculture in other areas of their teaching.

At the beginning of 2017 St Raphael's Catholic School in Cowra, home to a wide range of agricultural activities from livestock and cereals to a flourishing viticulture trade, did not offer agriculture as a subject. The Archibull Prize allowed agriculture and its careers to be put into context for both teachers and students and from 2018 agriculture will be taught at St Raphaels.

## THE ARCHIBULL PROMOTING AGRICULTURE

The Archibull Prize extends its influence well beyond the classroom by capturing both national and international audiences. Every Easter the Archie artworks designed by students travel to the Sydney Royal Easter Show where close to one million people walk by them. Stories about The Archibull have appeared in agricultural papers such as *The Land* and in national magazines such as *R.M William's Outback*, and school blogs are read by people around the globe.

In 2017 Matraville Sports High School teacher Sarah Robinson spoke about her experiences with The Archibull at the Steps to Sustainability Conference in Melbourne.

At the World Environmental Education Congress (WEEC) in Vancouver, Canada in September Lorraine Larri from Renshaw Hitchens on behalf of Art4Agriculture presented 'The Power of the Cow' outlining how The Archibull Prize provides a connection to agriculture, biosecurity and climate change.

A partnership between The Archibull Prize, National Farmers Federation and Hancock Pastoral to celebrate Australia's inaugural National Agriculture Day by encouraging careers in agriculture, also enabled The Archibull Prize to extend its national exposure.



L to R Adam Giles representing Hancock Pastoral with winners of National Ag Day Careers Competition Haylee Murrell, Saffron Butler, Joshua Carpenter.

This exposure and promotion is in turn reflected upon the sponsors and partners of The Archibull, showing them to be progressive and innovative contributors to the advancement of Australian agriculture.

## THE ARCHIBULL PRIZE AND TEACHERS

The Archibull Prize is attracting new teachers as well as continuing to involve teachers who have done the competition before. 73% of teacher participants were new to the program, the remaining 27% having participated more than once.

The Archie continues to be seen by teachers as a highly valued learning experience for their students. Through it, students achieve the highest standard possible for their abilities. The Archie provides educational opportunities not normally available. Most teachers plan to integrate the Archie into their teaching programs in the following year and agree that it links with the school curriculum.

*"This year we have had the most collaboration when completing the project. The students have been responsible for all aspects of the project. Many of our students now have an excellent knowledge of agriculture."* - Secondary Teacher.

A cross-curricular multi-disciplinary and project-based approach is a feature of The Archibull. Teachers reported that they followed through with their plans to collaborate with other teachers and integrate the Archie activities across multiple key learning areas (KLAs). Curriculum integration was achieved across multiple KLAs stemming from a focus on Creative Arts (62%), Technology (54%), and Agriculture (54%).

The program design allows agriculture to be imbedded into the school curriculum across subject areas its hasn't been traditionally able to reach.

### 83% OF TEACHERS SAID THEY WOULD USE LEARNING ACTIVITIES ABOUT AGRICULTURE IN OTHER AREAS OF THEIR TEACHING.

Teachers reported participating in The Archibull Prize had contributed to their professional development.

Teachers considered that professionally they had gained the most in:

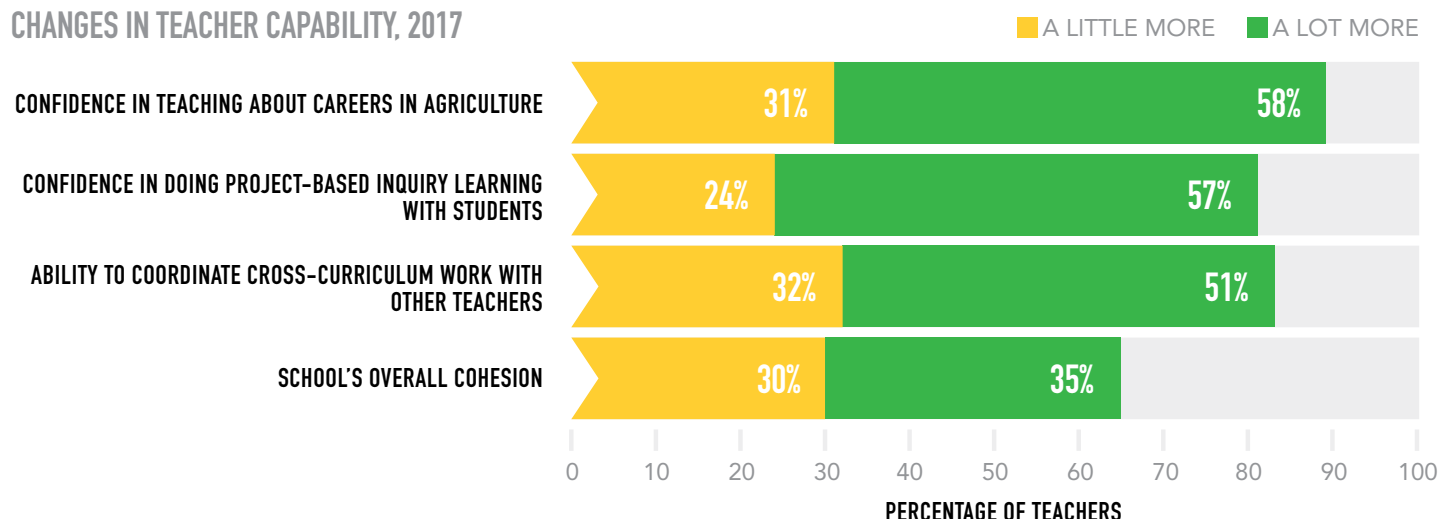
- Being more confident teaching about careers in Agriculture (89%).
- Coordinating cross-curriculum work with other teachers (83%).
- Doing project-based inquiry with students (81%).

The Archie had also helped in improving overall cohesion in their schools (65%). Comparing 2017 with 2016 data the proportion of increased confidence is weighted far more significantly towards 'a lot more' i.e. the increase in confidence is greater in 2017 compared with 2016 for all items.

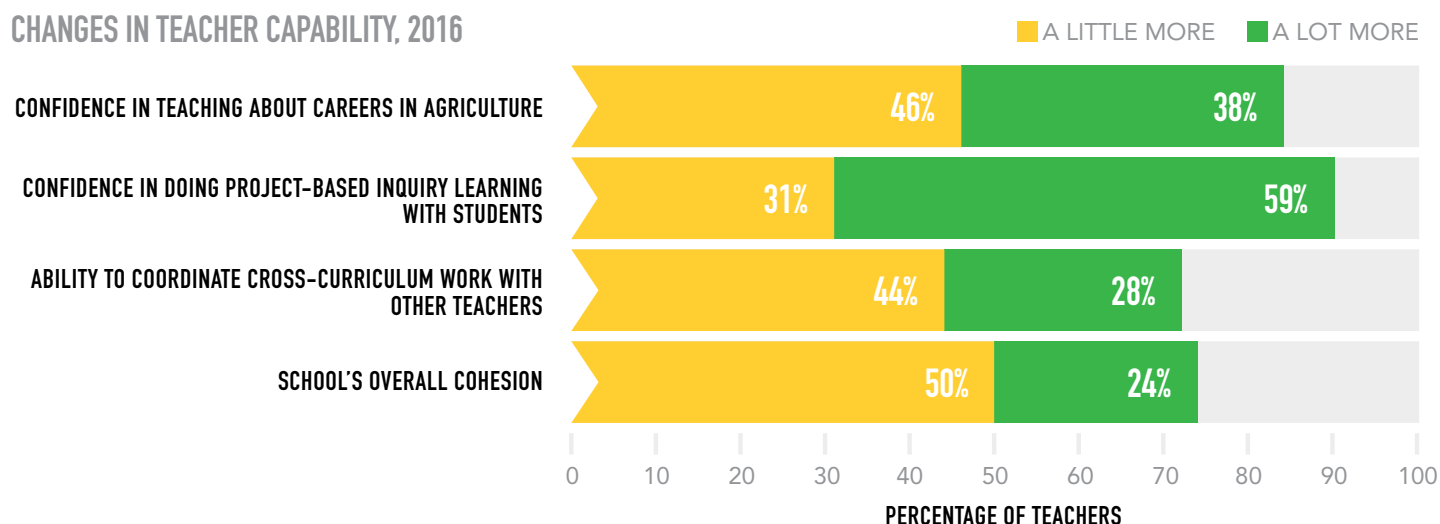
See Charts next page.



## CHANGES IN TEACHER CAPABILITY, 2017



## CHANGES IN TEACHER CAPABILITY, 2016



To support new participants to the program we conducted over 40 teacher interviews and developed six case studies to create the Teacher Insights page Visit [HERE](#). The following is a list of what the teachers most valued about the program. See video [HERE](#).

- AN ORGANISED, TOPICAL AND UP-TO-DATE PROGRAM
- GOOD COMMUNICATION BETWEEN PROGRAM ORGANISERS AND SCHOOLS
- GOOD SUPPORT AND BACK-UP FROM ORGANISERS
- USER FRIENDLY RESOURCES FOR BOTH PRIMARY AND SECONDARY STUDENTS
- GLOBAL RECOGNITION OF STUDENT EFFORTS THROUGH BLOGS
- THE YOUNG FARMING CHAMPIONS WHO SHARED THEIR KNOWLEDGE AND GAVE STUDENTS IDEAS AND DIRECTION
- RECOGNITION OF WOMEN IN AGRICULTURE
- INTEREST GENERATED IN SCHOOL STAFF
- INTEREST GENERATED IN THE COMMUNITY AND THE ABILITY OF THE PROGRAM TO BRING A COMMUNITY TOGETHER
- THE ABILITY TO PROVIDE A TRANSITION BETWEEN PRIMARY AND SECONDARY SCHOOLS

The Archibull Prize teacher evaluation consistently shows the program inspires educational leadership and excellence in:

- Supporting teachers to implement cutting edge future-focussed approaches to teaching and learning through project-based learning across curricula.
- Supporting teachers to implement Sustainability Education linked to State, Federal and International curriculum directions i.e. the Australian Curriculum Sustainability Priority and UN Sustainable Development goals.
- Creating significant gains for students by engaging them in learning – students say they want to come to school; teachers see students achieving the highest standard possible for their abilities.
- Enabling students to gain 21st Century skills i.e. teamwork, cooperation, planning, organising, creative problem-solving, communication, critical thinking, researching, active citizenship, initiative, enterprise, self-management, and capabilities in digital technologies and multimedia.

*“Why is engagement in learning essential? We need students in regional and urban areas to be passionate about their schooling. Staying on at school to the highest levels has been found to be a predictor of future economic independence and success as an adult. Australia can no longer afford to lose any of its human potential. The Archibull Prize is making a valuable contribution to approaches in teaching and learning that engage students in meaningful and authentic experiences. Its approach to integrating Sustainability Education is also vital for the future of Australia as we learn to meet the challenges of food, water and bio securities in this era of global climate disruption.”*

- L J Larri, 2018 Renshaw Hitchens  
Program Evaluator and Educational Researcher’

## PROGRAM EVALUATION AND OUTCOMES

The concepts relating to climate change, biosecurity, food security, and renewable energy are complex and require careful sequencing throughout schooling. The Australian Curriculum builds knowledge and understandings on these topics progressively from Primary to Senior Secondary levels. The Archie considers these concepts essential to student learning about farming and agriculture.

The Archie gives students a concrete mechanism for these very abstract ideas. This demonstrates sound educational practice. Students are encouraged to appreciate the ways in which farmers are actively addressing these challenges in Australia and to think about applying this to themselves.

To test the effectiveness of this approach, the entry and exit surveys asked students:

- Whether they had heard of these terms
- What they thought they meant
- And what actions they and farmers could take to become more sustainable. In particular:
  - Mitigating the effects of climate change;
  - Preventing breaches in biosecurity;
  - Ensuring improved food security for Australians; and
  - Transitioning to a low-carbon economy through adoption of renewable energy sources.

Teachers are key to facilitating learning. Critical to educational program implementation is ensuring teachers have the capability to deliver the program’s intended outcomes. The Archie provides teachers with resources to help build their capacity to communicate key sustainability concepts of climate change, biosecurity, food security, and renewable energy.

At the start of the 2017 competition, teachers gave their ideas about how they would explain some of the concepts to their students. They were also asked why they thought it was important for farmers, schools and communities to be concerned about biosecurity or food security, or to use renewable energy sources. Having these insights early on meant that the program was able to better help teachers with resources and strategies.

92% of teachers gave their ideas about how they would explain climate change to their students. Like previous years, many of the explanations were incomplete.

### TEACHERS REPORTED SIGNIFICANT SHIFTS IN STUDENTS GAINING GREATER UNDERSTANDINGS OF FARMERS CONCERNS ABOUT CLIMATE CHANGE, BIOSECURITY, FOOD SECURITY AND FOOD WASTE.

This indicates that teachers in the 2017 cohort have become better able to understand these concepts and can assess their students’ development. In this sense it can be considered a proxy measure (or indirect indicator) for increasing teacher capability.

This summary report will focus on Renshaw Hitchens evaluation of entry and exit survey responses to increase knowledge and appreciation of the following:

1. Biosecurity threats and how to mitigate them.
2. How food and fibre travel from paddock to plate/field to fibre.
3. The social, environmental and financial value of agriculture to healthy communities.
4. The diversity of careers in agriculture.
5. The challenges of farming in 21st century including climate change and the potential for agriculture to power the nation with clean energy.

### 1. STUDENTS INCREASED AWARENESS OF BIOSECURITY THREATS AND HOW TO MITIGATE THEM

The NSW Government sees a strong biosecurity system is vital for protecting our primary industries, our economy and our community.

Agriculture alone provides:

- \$12 billion NSW Primary Industries contribution to the economy.
- 39,000 agricultural businesses in NSW.
- 42,000 farms in NSW.
- 66,000 people employed in NSW Agriculture Industry.
- \$8 billion value of NSW Agricultural exports.

With a vision of government, industry and the people of NSW working together to protect the economy, environment and community from the negative impacts of animal and plant pests, diseases and weeds for the benefit of all, the government is investing heavily in education programs for farmers and the community including schools.

Concepts like biosecurity are considered by school teachers to be complex. Using farmers as role models and agricultural examples students are encouraged to appreciate the ways in which farmers are actively addressing biosecurity challenges in Australia and to think about applying this to themselves.

Biosecurity was an issue that **91% OF STUDENTS** reported discussing during their Archibull Prize projects with half of those students looking at the topic in-depth.

#### TEACHERS REPORTED SIGNIFICANT SHIFTS IN STUDENTS GAINING GREATER UNDERSTANDINGS OF FARMERS CONCERNS ABOUT BIOSECURITY AND THE COMMUNITY'S ROLE IN PREVENTING BIOSECURITY BREACHES.

Students were particularly inspired by the Cotton Industry 'Come Clean Go Clean' program and the concept of the pork industry Pig Pass.

Typical students' comments about their role in preventing biosecurity breaches included.

*"We need to keep our country free of disease and pests. This can only be done if every single person tries to follow the rules that are put in place to keep Australia bio secure. Students can help be bio secure by respecting the regulations and restrictions on other people's farms and obeying the rules of our border security. We should wear clean shoes and have clean cars, remove weeds and don't drop them in areas where that weed isn't already growing. Look after our own pets and keep parasites from spreading from them."*

View winning Biosecurity Animation from Little Bay Community of Schools [HERE](#).

## 2. STUDENT AWARENESS AND APPRECIATION OF THE PADDOCK TO PLATE/FIELD TO FIBRE PROCESS

Teachers felt it was important for students to connect with farmers to understand food supply and sustainability through an authentic real-life experience.

Sample of teacher comments reflect the diversity of contexts:

- We live in an agricultural town but so many of our students are disconnected from agricultural issues.
- Connection with farmers is a reality check for students. It allows them to understand where food/fibres originate.
- Our urban environment students may have little understanding of and contact with farmers and little understanding of the commercial, sustainability and citizenship issues relating to Australian agriculture
- It is important for students to understand that the food they eat doesn't just appear but is provided by hardworking, under-appreciated people.
- As a school with a large percentage of students from other cultures and countries it is important to educate them about the role our farmers play in the economy of the country.
- For students to know the impact of the buying power and the concept of carbon footprints. Also, the amount of work it takes to produce the food and how that directly impacts our farmers and their families.
- I believe that it is important to connect students with farmers so that they greater awareness of food and fibre and how these are grown and farmed. By connecting with farmers, the students have a closer relationship between urban and rural communities.

**81% OF STUDENTS REPORTED HAVING ENJOYED LEARNING ABOUT FARMING AND THEIR KNOWLEDGE INCREASED SIGNIFICANTLY FROM ONLY 16% TO 51% NOW KNOWING "LOTS MORE".**



### 3. INCREASE IN STUDENTS' AWARENESS AND APPRECIATION OF HOW THE AGRICULTURE SECTOR CONTRIBUTES TO THE SOCIAL, ENVIRONMENTAL AND FINANCIAL VALUE OF HEALTHY COMMUNITIES.

In 2017 the Archie embraced a new topic of 'Healthy Communities' which included food security, renewable energy, sustainable production and consumption, waste minimisation and healthy lifestyles.

**THE 81% OF STUDENTS WHO DISCUSSED THIS TOPIC DEMONSTRATED A CLEAR UNDERSTANDING OF THE CONNECTION BETWEEN AGRICULTURE AND HEALTH.**

They provided numerous examples of ways farmers and students can help with healthy communities, healthy eating, healthy lifestyles, and a healthy planet.

### 4. INCREASE IN STUDENTS' AWARENESS AND APPRECIATION OF THE CHALLENGES OF FARMING IN 21ST CENTURY INCLUDING CLIMATE CHANGE AND THE POTENTIAL FOR AGRICULTURE TO POWER THE NATION WITH RENEWABLE ENERGY

## CLIMATE CHANGE

Mitigating climate change has been declared as the most daunting challenge of this century.

**THE 92% OF STUDENTS WHO REPORTED THEY HAD DISCUSSED CLIMATE CHANGE DURING THEIR ARCHIBULL PRIZE PROJECTS WERE EASILY ABLE TO PROVIDE EXAMPLES OF WAYS FARMERS MANAGE THE CHALLENGES OF CLIMATE CHANGE WITH THE THEMES RELATED TO ENVIRONMENTAL CITIZENSHIP.<sup>2</sup>**

- Actively raising awareness and trying to educate; or
- Change behaviours and take action.

Comments by students included:

*"Climate change is turning the lives of farmers upside-down and is fundamentally changing the way agriculture is practiced. Drastically different weather patterns, shorter growing seasons, extreme weather, and many other changes pose daunting problems for farmers around the world. Farmers are being more efficient with environmental resources such as conserving water and reducing waste. They are looking at new technology, using minimum tillage and drought resistance crop species. Some farmers are using pig poo and cow manure to power their farms."*

## RENEWABLE ENERGY

Students' knowledge of clean energy options for farmers focussed on solar and wind with additional mentions of hydro, geothermal and biofuels. Some students mentioned on-farm examples of using animal waste as fuels having learnt about advances in piggeries.

**STUDENT COMMENTS DEMONSTRATE HOW TRANSITIONING TO CLEAN ENERGY IS A CONCEPT THAT STUDENTS ARE PASSIONATE ABOUT. THEY WERE KEENLY AWARE OF ACTIONS ADULTS AROUND THEM COULD TAKE IN TRANSITIONING TOWARDS RENEWABLE ENERGIES.**

They particularly focussed on solar panels. Energy conservation and improving efficiency were also included in both actions for students and knowledge of farm practices.

Student comments about agriculture and clean energy included:

*"As a class we learnt a lot about the clean energy options for farmers. Fossil fuels will eventually run out. Farmers have many different clean energy options. Solar energy is an effective way of providing clean energy on the farm. Other ways include wind and water turbines, which can create energy from movement, also known as kinetic energy."*

Students suggestions about their role in mitigating the impact of climate change included:

*"Students can help this transition by thinking up and designing new ways to run these clean energy options. We are the next generation; the people of the future. It is up to us to take action and help find a way to solve the problem. It is up to us to make this transition."*

*"We can transition into using clean energy in our everyday lives. In our homes we can learn to conserve energy, by turning off lights etc, suggest our families use solar panels, as energy from the sun is unlimited."*

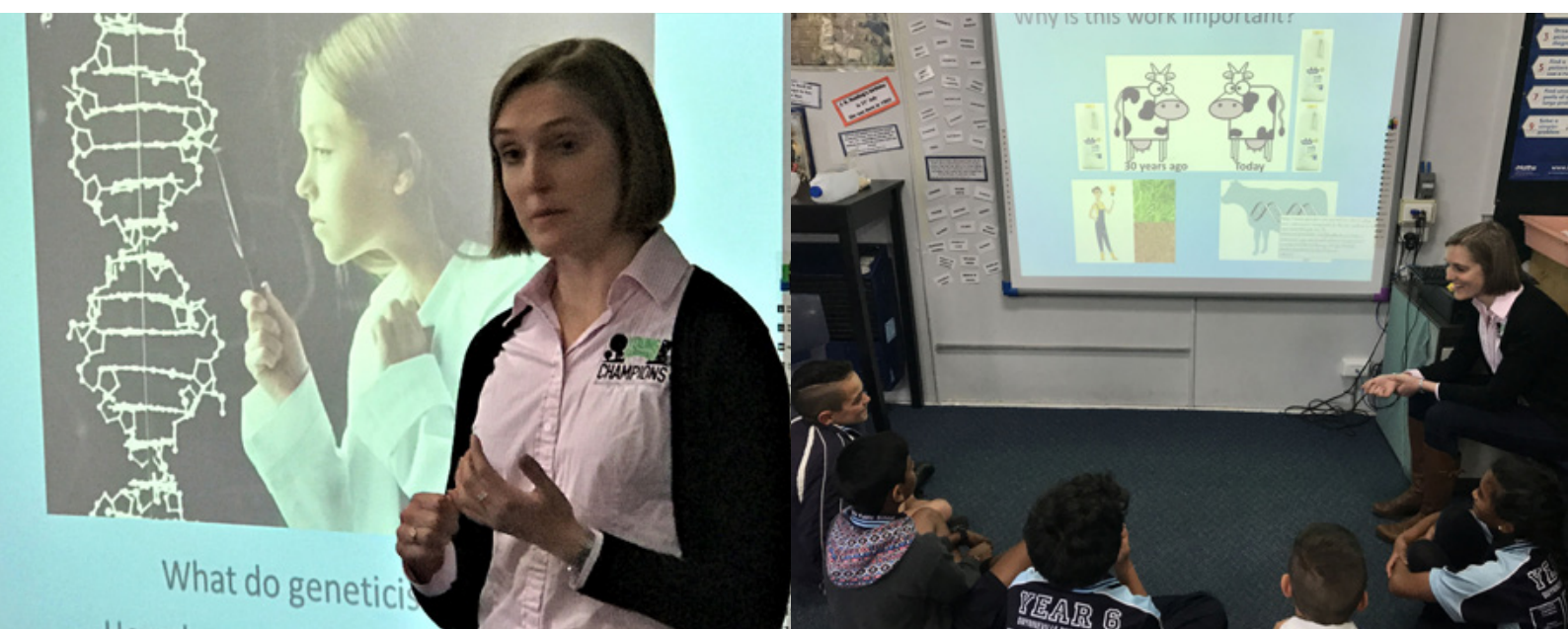
*"Students can encourage their school to change to renewable energy by spreading knowledge with posters and infographics."*

<sup>2</sup> Environmental citizenship incorporates "active citizenship" and expands it to include individual and group responsibility to work toward environmental sustainability (Larri, L J., (2015) "Deeds and Words": How Environmental Education in Australia is Active Citizenship. Journal of Social & Citizenship Education Association of Australia, 33 (2), 4-17).

In following Word clouds the larger the word in the visual the more common the word was used by the students.

Students and teachers relate to exciting young professionals working in the agriculture sector.

4 Agriculture beyond the Farmgate <https://www.csu.edu.au/research/grahamcentre/news/feature-stories/feature-story/2017/agriculture-beyond-the-farm-gate>



By the end of the competition students have a specific and varied repertoire related to actual career classifications rather than jobs around the farm. This is evident with more technical words being used i.e. agronomist, vet, engineer, scientist, geneticist.



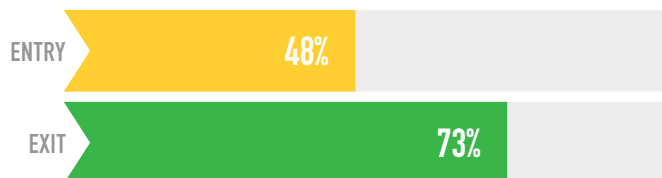
With a large cohort of our Young Farming Champions being scientists and agronomists their impact is evident through the high numbers of students who listed 'Agronomist' or 'Scientist' role. This is further confirmed as students listed their top three choices of careers in agriculture they would consider.

Students as the end of The Archibull Prize were asked to list their top three choices of careers in agriculture.



With 89% of teachers in The Archibull Prize exit survey saying they were now confident teaching about careers in Agriculture and a 52% increase in the number of teachers who STRONGLY AGREED there are lots of opportunities for jobs and careers in agriculture its clear we have found a winning formula.

## THERE ARE LOTS OF OPPORTUNITIES FOR JOBS AND CAREERS IN AGRICULTURE



TEACHERS WHO STRONGLY AGREED THERE ARE LOTS OF OPPORTUNITIES FOR JOBS AND CAREERS IN AGRICULTURE BEFORE AND POST PARTICIPATING ON THE ARCHIBULL PRIZE.

The Archibull Prize program design allows agriculture to be embedded into the school curriculum across subject areas its hasn't been traditionally able to reach. After participating in the program 83% of teachers said they would use learning activities about agriculture in other areas of their teaching.





## CONCLUSION – THE POWER OF THE COW

Now in its seventh year The Archibull Prize continues to be a strong educational and agricultural tool, building lasting relationships between farmers and the community through three key areas:

1. Quality Learning and Teaching - This program continues to meet the needs of the curriculum, enhance student engagement in learning, and extend teacher capability. Having a cow (or calf) as a focus of artistic and creative expression is a significant attraction in terms of student engagement – it's the Power of the Cow.
2. Understanding of Agriculture - Findings from The Archibull Prize 2017 indicate this program is changing attitudes about agriculture very positively for both students and their teachers. There has been an increased respect for farmers, and an appreciation of the high level of competence it takes to deliver food and fibre to the community.
3. Careers in Agriculture - Students are now more informed about the diverse range of careers and occupations possible through agriculture as a result of The Archibull Prize. Young Farming Champions (YFC) played an important role in educating students and their teachers about contemporary farming practices and career pathways in agriculture.

Staying on at school to the highest levels has been found to be a predictor of future economic independence and success as an adult. Australia can no longer afford to lose any of its human potential. We need students in regional and urban areas to be passionate about their schooling. The Archibull Prize is making a valuable contribution to approaches in teaching and learning that engage students in meaningful and authentic experiences. Its approach to integrating Sustainability Education is also vital for the future of Australia as we learn to meet the challenges of food, water and bio securities in this era of global climate disruption.

The Archibull Prize has proven to participants and sponsors, through extensive evaluation, its ability to successfully deliver its intended outcomes. This confirms that the conceptual model is sufficiently robust and replicable across multiple sites and States or Territories. If adequately resourced this program is ripe for replication and large-scale dissemination.

## CONTACT DETAILS

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