# AGRICULTURE INSTITUTE AUSTRALIA'S STUDENT COMPENDIUM IS BUILDING A SUSTAINABLE RESEARCH, DEVELOPMENT AND ADOPTION WORKFORCE

# B. Hancock<sup>1</sup> and T. Manning<sup>2</sup>

Agriculture Institute Australia, Nuriootpa, SA, 5355 Australia
School of Animal and Veterinary Sciences, University of Adelaide, Roseworthy, SA, 5371 Australia

## **SUMMARY**

The Student Compendium connects students to primary industries, and primary industry to students. It is a one-stop-shop that presents students with the breadth of opportunities within primary industries and natural resource management. The Compendium results from a collaboration between the Ag Institute SA Division (AIA-SA), a not-for-profit professional association for agriculture and natural resource management students and professionals, and the Adelaide University Agricultural Students Association (AUASA).

Within the 459 entries in the 2025 edition, over 20 Organisations from the dairy, beef, sheep, pork, chicken and alpaca industries have offered opportunities in animal breeding and genetics.

Annually, interns are engaged to collect, collate, communicate, and gain many new skills and confidence by directly performing the tasks to compile the compendium. Their experience is also shared with their fellow student cohort. The intern experience assists them to consolidate their entry point into the workforce or further study, and with the real winner being the industry as the interns are workforce-ready and emerging as future leaders.

# INTRODUCTION

Agricultural industries continue their strong desire to gain attention and attract the next generation of youth into life-long careers in agriculture (Hancock *et al.* 2022). The Student Compendium is a unique, innovative, and high-quality resource for students and industry alike. It acts as a conversation starter to call everyone to action on the *building human capacity* pillars of the South Australian Red Meat and Wool, Dairy, Grains, and Horticulture Industry Blueprints (Livestock SA 2024).

In 2021, AIA-SA and AUASA identified that an increasing number of students were keen to enter agriculture, especially during and after COVID-19 when attention was bought to food security and supply chains. However, students didn't know where to get connected to the industry to identify career opportunities. There was good general information on career pathways available through internet resources such as careerharvest.com.au, but the missing link was the opportunities that organisations were offering at the local level, and who to connect with. On approaching industry, they were equally frustrated in being unable to make connections with students across all levels of study, from high school to vocational and tertiary levels. Over the past 5 years, the Student Compendium (Davis *et al.* 2025) has become the connection tool.

To use South Australia as an example, if the industry is to successfully service the needs of the SA agriculture workforce pipeline, it must bring the great career opportunities in agriculture to the attention of students and parents who haven't ever thought about agriculture. The Student Compendium is well connected to the 70 high schools in SA that teach Agricultural Science. However, the majority of these schools are regionally located and have small numbers of students studying the subject. To increase the reach of career opportunities in agriculture, the industry must endeavor to extend its reach beyond this cohort, and appeal to students who may not be studying agriculture at these and the other 180 high schools in the state. South Australia doesn't need every

school to teach agricultural science. However, there is a need to immerse examples of agriculture into the curriculum of every subject. The Student Compendium is a valuable aid in this process.

#### MATERIALS AND METHODS

Over the 5 years from 2021 to 2025, 22 internships were offered to students through the AIA-SA & AUASA. Internships are offered via an annual expression of interest application process to engage agricultural, animal sciences, and agribusiness undergraduate students as a Project Officer Intern, a Communications & Socials Intern, and 3 to 4 Compendium Interns (Hancock 2022; Blight, 2024). The Compendium Interns have undertaken the majority of the collection of new content and sponsorship for the compendium. The Internships are performed over the second half of semester two and during the summer break ensuring the compendium is ready and printed for orientation week at the commencement of the academic year. The internships require a commitment of 80 to 120 hours, completed at the student's own negotiated pace, and they fit it in and around study, exams, other industry work experience, and their social lives.

Organisations are approached by the interns to summarise student opportunities into 130 words or less, to fit within one of the following sections; i) high school and vocational training, ii) internships and work experience, iii) graduate and trainee programs, iv) undergraduate scholarships, v) postgraduate scholarships and studies, vi) early-mid career professional development awards, vii) competitions and travel, viii) conferences, ix) industry and professional associations and networks. Organisations are invited to contribute a simple, low cost, high-impact sponsorship of logo or advert.

Each year, the Student Compendium is collected and collated from October to December, compiled in January, printed in February, and launched in March where student and industry participants are asked to rate the value of the Compendium to students on a scale of zero to five. Five hundred hard copies are printed and distributed, and an electronic PDF version is posted on the AIA, AUASA, and major funding partner's websites, as well as the University's internship and work experience portals.

Opportunities within animal breeding and genetics come from the dairy, beef, sheep, pork, chicken, and alpaca sectors. They include a diverse array of offerings from Career Harvest, industry vacation placements, feedlots, processors, SunPork, Auctions Plus, Elders, Nutrien, Angus Australia, Hereford Australia, SA Livestock Consultants, postgraduate studies, conferences, and professional associations (e.g. Association for Advancement of Animal Breeding and Genetics).

The Communications and Social Plan (Hancock 2024) was developed by the 2023 Student Compendium Working Group. Each year, the interns are trained, briefed, and engaged in the key foundations of the Communications Plan and explore new communications technologies. They also develop the cover design that is subtly distinguishable from the previous edition. During the year the Communication & Social intern develops AIA's socials and posts the sponsor's student opportunities under the brand of Compendium Corner (AIA 2024).

Following training in media and photography by the Stock Journal, Ag Communicators, and Environmental & Science Media, interns co-author conference and journal papers, develop conference posters, attend professional and industry conferences, write media releases and produce videos. They apply for appropriate awards and competitions.

In a new initiative in 2024, the Student Compendium High Schools Special Edition was sent to all 250 High Schools in SA, along with five hard copies, a PDF copy and a QR code to access the document online. At each school, key influencers were shown the value of the compendium and its intended usage. They included the Principal, the Ag Science and Science teachers, SACE coordinators, career pathways advisors and counsellors, and the school and community library. The high schools were encouraged to promote the compendium in school newsletters and encourage local agriculture professional to attend career nights and expos, and to bring it to the attention of

parents and guardians as they continue to be major influencers of students' career entry points and pathways (Graham 2021).

## RESULTS AND DISCUSSION

The Student Compendium is rated very highly by industry and users for value and usefulness. Over the 5 years from 2021 to 2025, the Student Compendium has rated from 4.5 in 2021 up to 5.0 in 2025 on a scale of 0 to 5 for value to students by both students and professionals. A survey of 2<sup>nd</sup> and 3<sup>rd</sup> year ag science students has indicated that students were seeking out 5 to 10 opportunities from the compendium, with some engaging in more than 10. Learnings and experiences of the Compendium Interns frequently form the content or base of the Stock Journal's Undergraduate Insight Opinion Column.

A number of videos were scripted, filmed, edited and produced in 2024. The major one was a new video highlighting the intern experience in a *behind the scenes* feature of the Ag Institute Australia (AIA) Student Compendium program, and captured the journey of the 2024 interns and the practical insights gained. It delved into the hands-on nature of the internship and showcased how agricultural students applied their knowledge and skills in real-world settings. The video highlighted the dynamic and interactive environment that the internship provided, and how it offered students the chance to connect with industry professionals and develop essential skills for their future careers. Individually, it helped the interns build a network as a key stepping stone to career development, expanded a professional network that connected with industry leaders, contributed to securing a dream job as a graduate, expanded agricultural knowledge through hands-on experiences in university and on farms in the United Kingdom. For all of the interns, the program built confidence and important skills in networking and professional communication. The video was filmed across various locations, capturing interviews with these students, showcasing the significant impact the internship had on their career readiness and industry connections (Adams 2024).

Other videos developed during the program have included promotional videos for students, professional membership of the Grasslands Society of Southern Australia, a preview for the Barossa Improved Grazing Group (BIGG) Annual Conference, and The Primary Industries Education Foundation of Australia (PIEFA) Blog Series: student insights highlighting tertiary agriculture studies and career expos.

A number of interns have received notable awards during their time as interns, including James Easter, Student of the Year award, 2022 Kondinin / ABC Rural (Chambers 2023), Grace Maloney, Highly Commended award, 2023 Rural Media & Communications (SA/NT), Tayla Blight, Junior LambEx Coles Trailblazer 2024, (Blight 2024), and Emily Adams received two awards, Winner and Highly Commended, Rural Media & Communications SA/NT 2024.

The skills and confidence gained from the Student Compendium experience resulted in interns gaining other internships and conference bursaries such as the Barossa Improved Grazing Group (BIGG) Conference, Overseas Study Experience, Grasslands Conference: Joyce Gillepsie and AW Howard Memorial Trust, BIGG Communication Intern – Drought Preparedness, AgriFutures Horizon Scholarship, Crawford Fund Conference, LambEx'24, Women Together Learning (WoTL), 2024 SA Livestock Advisor Update and the AIA-SA Newsletter Editor Internship.

A literature legacy continues to build and provides interns with valuable experience and skills in co-authoring of papers, and presenting at conferences such Australian Association of Animal Sciences, Primary Industries Education Foundation Australia, Australasian Pacific Extension Network, National Association of Agriculture Educators, and Grasslands Society of Southern Australia.

Following the South Australian lead, there are now 2<sup>nd</sup> editions of the compendium developed in WA and NSW, and a 1<sup>st</sup> edition in Queensland/Northern Territory. On the back of these successes, the SA branch of AIA is now facilitating the development of a national compendium.

Building connections and relationships between students and industry professionals and their organisations is achieved by attending University events such as orientation days, AgTivate Your Career, and Growing the Future. AUASA also offers a mentoring program for 3<sup>rd</sup> year students called *Plant the Seed of Your Career*, and AIA has developed its own mentoring program. Both mentoring programs have seen a noticeable increase in the demand for grazing livestock mentors.

Invitations continue to be extended to high schools, residential boarding colleges, and regional field days and career expos to participate in the program, where there is increasing engagement with non-farm-based students, and students who haven't previously thought about a career in agriculture.

#### CONCLUSION

The 22 Student Compendium Interns have gained quality skills and confidence and it has set them on their journey to becoming emerging leaders in agriculture, and champions to their student peers to build the research, development, and adoption workforce of the future. The compendium provides over 450 opportunities for high school, vocational and tertiary students to connect with primary industries and further build the workforce. It is available in all 250 high schools in SA and is a key resource for university students. Primary industries organisations value the compendium as a way to connect with students, provide support, guidance, and mentoring, and in-turn, build the workforce.

#### **ACKNOWLEDGEMENTS**

The authors wish to acknowledge the financial contributions made by the 6 major funding partners, including the SA Grains Industry Trust Fund, YITPI Foundation, SA Sheep Industry Fund, SA Cattle Industry Fund, Primary Industries Education Foundation of Australia, the Show Society Foundation, the 2024 Student Compendium High Schools Special Edition sponsors, the Show Society Foundation, Citrus SA, Lucindale Lions - SE Field Days, Mannum Lions, Stirling Rotary - Hills Small Acreage Field Days, YP Field Days, and Loudounbrae Farming. We acknowledge the hard work of 2021-25 Student Compendium Working Groups for their concerted drive to grow, develop and increase the outreach of the Compendium, and Miriam Yip (Environmental Science & Media), Belinda Cay (AgCommunicators), and Elizabeth Anderson (Stock Journal) for respective assistance with video, communications and media.

### REFERENCES

Adams E., Hancock B. and Davis C. (2024) J. Ag Inst. Aust. 35: 27.

AIA (2024) 'Compendium Corner'. https://www.facebook.com/AgInstituteAustralia [retrieved on 18<sup>th</sup> December 2024]

Blight T. and Hancock B. (2024) J. Ag Inst. Aust. 35: 20.

Chambers E., Easter J. and Hancock B. (2023) Proc. Pri. Ind. Ed. Found. Aust. 4: 7.

Davis M., Davis C., Hancock B., Manning., Thomas R., Bird R., Norman J., Lokan S. and Gifford S. (2025) 'Student Compendium' 5<sup>th</sup> ed. Agriculture Institute Australia.

Graham S. (2021) J. Int. Inn. Sci. Math. 29: 11.

Hancock B. and Maloney G. (2024) J. Rur. Ext. Inn. Sys. 20: 47.

Hancock B., Davis C. and Blight T. (2024) J. Ag Inst. Aust. 35: 24.

Hancock B. and Davis C. (2022) J. Ag Inst. Aust. 33: 27.

Hancock B., Peters E., Easter J., Manouge S. and Chambers E. (2022) *Proc. Aust. Assoc. Anim. Sc.* **34**: exlix.

Livestock SA (2024) SA Red Meat and Wool Blueprint 2030. https://livestocksa.org.au/industry-development/industry-blueprint [Retrieved on 18th December 2024].