

Final Report

Australian Turf industry communications program

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Turf Australia

Project code:

TU16004

Project:

Australian Turf industry communications program (TU16004)

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Public summary

The *Australian Turf Industry Communications Program* (TU16004) commenced in 2017 and is the principal channel to connect turf industry levy payers with the progress and outcomes of levy funded R&D and marketing.

Since April 2019, Cox Inall Communications has operated as a sub-contractor to deliver several communication outputs for the Program. Specifically, these outputs include the quarterly magazine, monthly e-newsletter social media calendars and the development of fact sheets for industry. The project was extended for one year in August 2020 and now also includes the development of public facing and industry facing factsheets, media releases and an extension of social media activity. It was extended again until May 1, to ensure it aligns with the new Turf Industry Development and Extension Project.

Cox Inall works with Turf Australia to ensure outputs are delivered on time and to a high professional standard. The partnership brings together Cox Inall's communication expertise and Turf Australia's industry networks.

Throughout the project the team has delivered all its requirements including the development of quarterly magazines, monthly newsletters, a steady cadence of social media, the development of industry factsheets and public facing media releases as well as the management of the Turf Australia website.

TU16004 is the leading source of information for levy funded R&D and marketing. As the project progressed, the audience of growers and allied industry stakeholders grew significantly. For example, at project inception there were 276 followers of the Facebook page *Turf Australia*. At time of writing, there are 784 followers and 1230 page likes. This represents a 284% increase in audience.

Throughout the project, growers regularly reported a high level of engagement with key project outcomes and stated that this project met their needs as growers by providing, relevant, useful and applicable information.

At the conclusion of the project a survey of growers was conducted which confirmed that the outputs developed by the project were effective. In fact 67% of respondents to this survey noted that they had implemented levy-funded insights off the back of the communications project.

This report includes some key recommendations for the future of turf communications including ensuring that communications efforts are aligned with the *Turf Industry Development and Extension Project* and that the two projects collaborate closely to ensure communications and extension, in partnership, lead to adoption of best management practices as well as the provision of growers with the tools they need to convey the benefits of living turf.

Keywords

Turf, turf production, urban heat island, Greenlife, landscape, biosecurity, pests and disease

Introduction

The overarching objective of this program is to develop and foster the advancement and profitability of a sustainable natural turfgrass industry in Australia.

In order to achieve this, the communications program has focused on delivering information and knowledge to turf industry professionals in impactful and engaging ways.

The majority of this project was guided by the Turf Industry Strategic Investment Plan (SIP) 2012-16, with communications playing an active role in working towards two of the five industry outcomes according to the Plan :

- Outcome 2: Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights
- Outcome 3: Improved farm practices and profitability from increased awareness and adoption of turf R&D

In February 2017, Turf Australia was contracted by Hort Innovation to deliver communication services regarding R&D and marketing activities, to increase awareness and to promote outcomes of turf levy investment with a long-term aim of building capacity within the industry.

In April 2019, Turf Australia appointed Cox Inall to support the ongoing delivery of the project after Turf Australia's communications manager resigned.

Since then, Turf Australia and Cox Inall have partnered to develop a robust communications strategy, updated on a yearly basis that sets out the approach and key deliverables over the course of the project. Plans were updated on a regular basis based on feedback from industry based on insights from formal surveys conducted as part of this project, anecdotal feedback and feedback from other projects (particularly the *National Market Development Project*)

Over the life of the project and inclusive of extensions, the project delivered 19 quarterly magazines, 57 monthly eNewsletters, 6 media releases, 10 factsheets, one poster and managed the Turf Australia website and social media pages.

The program has evolved into a pivotal channel to connect growers with the latest R&D and marketing insights. Using a diverse mix of communication outputs, from hard copy magazines, to factsheets and public facing communications the project team has developed a significant amount of content highlighting the progress of levy funded projects and wider Hort Frontiers initiative.

The levy projects had a lean towards conveying the benefits of living turf, so this project focused much of its communications efforts into helping growers understand these benefits themselves, and being able to convey these benefits to their customers accordingly.

The success of the project was helped through the strong relationships built by Turf Australia to bring key stakeholders together. This included with direct sub-contractors of the project such as Cox Inall and Grant Nelson Design, but also through close integration with state turf producing associations, turf growing commercial groups, allied industries and consumers.

To ensure continuous improvement, Cox Inall has undertaken regular surveys to assess the effectiveness of the communications program. The survey also informed new recommendations to strengthen the focus and delivery of content to growers and broader value chain. In addition, regular feedback was sought anecdotally and shared across related projects such as the *National Market Development Project* Turf Census.

Over the lifetime of the project, Turf Australia, in collaboration with project partner, Cox Inall have met KPIs and deliverables, considerably grew the audience of this project whilst beating KPIs for reach and engagement. Feedback demonstrated that the industry saw value in the outputs we developed and that it led to a greater understanding of the benefits of turf and practice change on farm.

Methodology

< Outline how the project was undertaken. This will include the work performed such as experiments, field trials, technology development and extension/training events. If the methodology included the use of data/information from other/previous projects or linkage to extension/communication activities in other projects, then this should be detailed. The high-level scientific methodology only should be included in the body of the final report, with the detail (necessary for the methodology to be repeated) provided as an appendix. For more information, refer to *Attachment A3: Final report guide* >

The following methodology guided the delivery of the Australian turf industry communications program:

Communications Strategy:

The initial communications strategy was developed by Cox Inall, taking into consideration the priorities outlined in the SIP and feedback from regular communications surveys, and anecdotal feedback received from growers. As Turf Australia managed the National Market Development Project, the project team was in constant consultation with growers.

The Turf Industry Communications Strategy assisted with the ongoing development of the communications strategy for TU16004. The strategy focused on better communicating R&D outcomes to levy payers using key channels and focusing on the topics which mattered most to them.

Annual Stakeholder Survey:

The annual stakeholder survey performed throughout the Australian turf industry communications program was used to inform the following year's strategy.

The annual survey consisted of 10 questions, and were conducted in 2020, 2021 and 2022

The questions were designed to garner feedback on communications outputs, what information levy-payers seek, and preferred communications channels to access information.

Results of these surveys are included in the outcomes section of this final report.

Work in Progress (WIP) Meetings:

Cox Inall and Turf Australia established quarterly work in progress (WIP) meetings for the duration of the communications program. The WIPs were considered a valuable forum to discuss projects and upcoming outputs, ensuring they were relevant, timely and to a high standard.

Outside of these meetings, Cox Inall and Turf Australia regularly collaborated on an ad-hoc basis throughout the program duration.

Communications Outputs and Channels:

A number of outputs and channels were used to communicate with levy payers and related industries. These included eNewsletters, print magazines, factsheets, posters, media releases and social media.

These are detailed in the outputs section.

Photos/images/other audio-visual material

< Refer to *Attachment A3: Final report guide* or the guidance note at the start of this template >

Results and discussion

< Provide results of the work undertaken including applicable tables, graphs and figures generated through the project. All data sets and/or databases should be supplied as appendices to the final report (and marked confidential as appropriate). The discussion should outline what the results mean for use and uptake by horticultural businesses or other industry stakeholders or for future/related research projects. Detailed scientific information (e.g. tables and figures) should be provided in appendices. Consider the target audience of the final report. For more information, refer to *Attachment A3: Final report guide* >

Key objectives of TU16004 to increase industry understanding, awareness, and adoption of turf levy funded R&D and marketing; facilitate the adoption of R&D and marketing outputs and Promote Hort Innovation activities and management of the national R&D program.

Results of work undertaken

Over the course of the project, Turf Australia and Cox Inall have developed 57 eNewsletters, 19 quarterly magazines, seven factsheets, four media releases, one poster, and regularly updated website and Facebook page

Throughout the project, industry has maintained interest for outputs produced. The below results follow the M&E evaluation matrix approved by Hort Innovation.

Table 1. eNewsletters

One of the key measures of industry engagement is in click through and open rates for the quarterly eNewsletter. The eNewsletter has consistently performed at an exceedingly high-level with results far exceeding industry benchmarks. For the lifetime of the project the monthly eNewsletter's open rate was 39%, significantly higher than an industry (agriculture) benchmark of 23.31% (source: <https://mailchimp.com/en-au/resources/email-marketing-benchmarks/>).

The eNewsletter also had extremely high open rate, an average of 8.6% across the project, against an industry benchmark of 2.94%. These consistently strong results indicate that the Australian turf industry continued to see value in the content throughout the lifetime of the project..

eNewsletters are developed and built by Cox Inall with planning support and content guidance from Turf Australia. Each edition is distributed by Turf Australia to their stakeholder database, of 702 contacts.

The contact list consists of 80% growers and also includes allied businesses, commercial partners and other stakeholders.

Reporting period	Open rate (%)	Click Rate (%)
August 19 – Jan 20	43.6%	9.4%
Feb 20 – July 21	38.8%	8.4%
August 20 – Jan 21	34.6%	8.1%
Feb 21 – July 21	35.7%	8.1%
August 21 – Jan 22	39.2%	8.3%
Mar 22 – Sep 22	42.5%	9.5%

*data analytics is only available from August 19, when the newsletter was migrated to Mailchimp, for the purpose of better tracking and analysis.

Success of the eNewsletter can also be measured by responses to surveys directly asking about the output. In 2021, 75% of respondents to the Turf Australia communications survey said the eNews, was “mostly” or “always” relevant and in 2022 and 67% of respondents said it was somewhat useful or always useful.

Quarterly Magazine:

The quarterly magazine is delivered to all levy payers and some other industry stakeholders.

Results from the various outputs and channels shows that growers and industry are engaging with communications outputs, which works to equip growers with the information and resources to understand levy funded project outcomes to support the implementation of practice change on-farm.

The Turf Australia quarterly magazine consistently ranks as the most well-read and engaging output from this program. Each time growers have been surveyed, 100% of respondents have said that they read the magazine and that it is the most valued output.

In the most recent (2022) survey, all respondents said they receive the magazine.

Factsheets:

When asked about the relevance of factsheets, all of which cover levy-funded research 77% of growers indicated in 2021 that they found these useful and relevant.

Industry has provided positive anecdotal feedback about the factsheets and that they used the content to share amongst their audiences. This is backed up by evidence on social media which sees turf growers sharing factsheets on the benefits of living turf to their audience. See example post:

<https://www.facebook.com/turfaustralia/posts/pfbid02PJHbaV2eU2ujEmS6yMDY3xRH3xwJ5e2cdS5DHrpWtPUJFmrirEdr35wCndVwEWsWI> shared by 17 users, mostly growers.

Media releases:

A total of four media releases were developed, reviewed and approved by Hort Innovation.

Pleasingly, we were able to secure national coverage for turf levy funded project *Conveying the benefits of living turf – a natural bushfire retardant* (TU17008). This news was picked up by The Weekly Times, Hawkesbury Gazette and was syndicated nationally on Fairfax leading to a reach of over 5 million.

Stakeholder Surveys:

The annual stakeholder survey sought to provide the best opportunity to assess value placed on outputs, identify key challenges facing industry, and identify whether the content has encouraged growers to seek more information or adopt R&D findings. Results also helped inform recommendations for the next iteration of this program.

The first survey was carried out in 2020. The full results are available in the Appendix section, highlights from the survey of 28 respondents include:

- The Quarterly Magazine is seen as the most important publication with 85% of respondents agreeing it was mostly or always relevant to their needs as a grower •

Over 90% of respondents recalled seeing the Quarterly Magazine and eNews

- Respondents are most interested in seeing news articles about the turf industry and least interested in seeing updates on marketing projects or advertising
- We suggested two alternative channels (a weekly blog and a podcast) which were both seen as channels that growers were less likely to engage with as compared to current channels
- 74% of Growers reported that the communications program 'Generally', 'Almost always' or 'Always' meets their needs as a grower

The 2021 survey collected 25 responses from industry, mostly from turf industry levy players. Key findings from the survey have helped to identify relevant target audiences and to fine-tune contracted activities for this communications strategy.

Key findings were as follows:

- Every grower survey indicated they were familiar with the quarterly magazine (and anecdotally is most frequently cited by growers) and 100% of the respondents say they read it.
- Only 50% of growers surveyed were familiar with Turf Australia social media – reinforcing the importance of an offline/online split in communications
- At least 75% of growers said each of the core outputs (magazine, eNews, social media and website) were “Mostly” or “Always” relevant
- 80% of growers rated the website as “Good”, “Great” or “Excellent” across each of the following categories: Look & Feel, Ease of Use, Relevance for Turf Growers, Relevance for Consumers, Quality of Information.
- 77% of respondents found industry fact sheets relevant to them as turf growers
- In general, growers said that case studies were the most valued type of content with updates from Hort Innovation and the broader agriculture industry the lowest.

Finally, a survey was distributed in September 2022, and although 9 responses were received it still provided some useful insights including:

- High recognition amongst growers of all outputs, led by 100% recognition of the Turf Australia magazine
- High satisfaction levels with usefulness of outputs, led by 100% of growers finding the magazine useful to them as growers
- 67% of respondents indicating that the outputs meet their needs as a grower to some extent
- 67% of respondents indicating that they have made changes to their operations based on levy-funded communications

Social media

Throughout the course of the project we have seen continued success in building an audience of engaged growers and allied business via the Turf Australia Facebook page.

In fact, at the projects inception there were 276 followers of the Facebook page *Turf Australia*. At time of writing, there are 784 followers and 1230 page likes.

This represents a 284% increase in audience.

In our most successful months, we have been reaching 2444 users and our highest engagement rate is 22% for a month of activity. The industry benchmark is around 1%.

Outputs

< Project outputs are the tangible products or services (deliverables) that are produced from the project activities. List tangible project outputs delivered with appropriate description and detail.

A summary of the project's outputs should be completed using the table below, using monitoring data collected to provide evidence of outputs as per the project's M&E Plan (where applicable). Examples of the outputs must be supplied as an appendix and uploaded into the Delivery Partner Portal (where appropriate), and if the output is digital, a link to the output is also required.

Provide a detailed list of extension activities conducted over the project life and any associated links to other projects and documentation.

Table 1. Output summary

Output	Description	Detail
Turf Australia quarterly magazine	This magazine is produced to coincide with seasons to allow for seasonally relevant information to be provided to growers. Typically, magazines are distributed to industry by the end of the first month of each season. Turf Australia works with a professional graphic designer to ensure that the magazine is visual, clean and polished. The objective is to ensure it looks like a magazine rather than a newsletter	The turf magazine is printed and distributed to all turf levy-payers via mail. In addition, an online version is made available to growers and distributed through all Turf Australia channels including website, social media and eNewsletters. Where applicable, individual stories are shared with specific stakeholders and revisited when relevant (e.g. stories relating to the bushfire retardant properties of turf will be redistributed as we head into spring. The Turf Australia Magazine is consistently rated by growers as extremely useful and remains a very well-read publication. In the most recently conducted (September 2022), survey of turf growers under this project, 100% of respondents say they read the magazine each edition either "cover to cover" or "regularly". This is consistent with a survey in 2020 which also said that 100% of growers read the magazine All 19 magazines created under this project are available for download here: https://www.turfaustralia.com.au/news/turf-industry-magazine/
Turf Australia eNews	The Turf Australia eNewsletter is a monthly output that is distributed to all levy payers via email. Information found in the eNewsletter is shorter, punchier and designed to deliver more regular updates on levy-funded projects and events. The newsletter is laid out in a professional Mailchimp template to ensure readability.	The turf newsletter is distributed via email to all levy payers, as well as employees of turf farms, allied businesses and other stakeholders. The distribution database is 729 turf industry participants. Success of this output and its feedback from growers can be determined by its readership and engagement when measured against industry benchmarks. Most recently, the open rate for the Turf Australia eNews was set at 39%, well surpassing the industry standard (https://www.campaignmonitor.com/resources/guides/email-marketing-benchmarks/#one) of 23.2%. All 57 newsletters created under this project are available here Where applicable, individual stories are shared with specific stakeholders and revisited when relevant (e.g. stories relating to the bushfire retardant properties of turf will be redistributed as we head into spring.

Turf Australia Facebook page	The Turf Australia Facebook page (original Turf Australia Growers), has grown exponentially since inception. The page is used to share content produced with growers and other allied businesses as well as consumers. The page is also used to use levy-funded research to insert turf's voice into the national conversation. For example, sharing findings from the project <i>Conveying the benefits of living turf – a natural bushfire retardant</i>, in spring time. Occasionally, using funds from the National Turf Industry Market Development Project, and time associated with this project, we have 'promoted posts' on Facebook to drastically increase their reach.	As the project has progressed, the audience of growers and The Turf Australia Facebook page has grown significantly since project inception. At the beginning of this project there were 276 followers of the Facebook page <i>Turf Australia</i>. At time of writing, there are 784 followers and 1230 page likes. This represents a 284% increase in audience. In our most successful months, we have been reaching 2444 users and our highest engagement rate is 22% for a month of activity. The industry benchmark is around 1%. All activity on the Turf Australia Facebook page is available here: https://www.facebook.com/turfaustralia
Turf Australia Website	The Turf Australia website is run and maintained under this project. The website has been built to ensure all levy-funded projects and content produced by the Turf Industry Communications Program is easily accessible to all levy payers. In 2020, Turf Australia revamped its website with a clear pathway for growers and the public to access up to date R&D and marketing content.	The Turf Australia website includes a standalone section the turf levy as well as a library of all levy-funded projects and activity. It also includes all content created through this project and other extension projects. In the 2021 survey of turf growers, 75% of respondents indicated that the revamped Turf Australia website was Mostly Relevant or Always Relevant to them
Media releases	In 2020, the project was expanded to include the	A total of four media releases have been developed including the following:

	development of 4 media releases. The purpose of the media releases was to extend R&D findings beyond Turf Australia's core channels of growers. By distributing and pitching media releases, we have been able to convey the benefits of living turf to government, landscape and general public audiences.	- Scientific study finds living turf provides line of defence against bushfires (TU17008) - Living turf and Greenlife can play active role in bushfire management (TU17008) - Living lawns breathing life into Australian cities (TU1800) These media releases succeeded in broadening the audience for levy-funded outcomes and coverage on media was secured nationally. Some of the highlights of media relations activity include: New study examines lawn's fire barrier credentials (The Weekly Times) Re-writing our gum-tree fantasy to fire-proof the future (Sydney Morning Herald)
Factsheets	In 2020, the project was expanded to include the development of industry factsheets, of which 7 have been developed The purpose of the factsheets is to provide growers with key information on levy funded projects as well as provide key info to allied businesses. Factsheets have been added to the Turf Australia website, including in eNewsletters and magazines and in some cases shared directly with allied businesses	The following fact sheets have been developed: Natural turf actively fights climate change Improve your energy efficiency Turf: A natural sponge for carbon dioxide Bushfire protection benefits of turf - About the levy: see appendix - Buffalo yellowing: see appendix - How to manage couch smut: see appendix

Outcomes

The three key objectives established through the communications in TU16004 were:

- Increase industry awareness and understanding of turf levy funded R&D and marketing activities and outputs.
- Facilitate the adoption of the R&D and marketing outputs to increase the productivity, profitability and professionalism of the turf industry.
- Promote Hort Innovation activities and management of the national R&D program to all turf levy payers.

Over the course of this project, and by following communications strategies guided by industry feedback, these outcomes have been met.

This can be validated through survey responses which frequently cite that the outputs developed by this program are useful and relevant but also as recently in 2022, a majority (67%), responding that they have actually implemented practice change, or marketing activity based on content from the levy communications program.

This implies that there has been a tangible knowledge transfer to the turf industry and that we have created a better-informed industry which has the tools required to increase productivity and profitability.

Throughout the project, Turf Australia, with the support of Co Inall has developed a comprehensive and robust portfolio of outputs across a range of different channels, sharing the latest updates and information on the turf levy fund, Hort Innovation and marketing initiatives. The Turf Australia Quarterly Magazine regularly reported readership rates of close to 100% of the surveyed industry, meaning this content is proven to have reached its intended audience.

Key outcomes and achievements against key evaluation criteria established at the commencements of the program, are outlined below in the Morning and Evaluation section of this report.

The communications strategy, provided a solid foundation for this project whilst the annual stakeholder survey and was used to guide the strategy and inform content. This yearly evaluation ensured communications were timely, relevant to levy payers, identified key priority areas for industry, and were delivered to a very high standard. We also worked closely with other projects, specifically the National Market Development Project and its Turf Census to provide guidance to this project

Cox Inall ensured levy funded project outcomes and updates were communicated and promoted so that industry stakeholders such as landscape architects had an opportunity to read the latest findings as well.

Communications increased growers' knowledge of the R&D and marketing levies, to help them better understand where investment was being allocated through project updates.

Additional recommendations for outputs were provided in the communications strategy each year as a way of further increasing engagement with growers and to drive traffic to the website, these outputs such as factsheets and media releases were well received by the industry.

Key program outcomes are detailed below.

Table 2. Outcome summary

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
Facilitate the adoption of the R&D and marketing outputs to increase the productivity, profitability and professionalism of the turf industry.	Outcome 2: Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights	All content created through the program has been designed to increase industry awareness, adoption and practice covering topics from disease management, to energy efficiency and conveying the benefits of living turf. In addition, content has been developed so that it is easily understood by growers and can be actioned accordingly. This is particularly true for the seven factsheets developed by the program.	The Turf Industry Communications Program worked hand-in-hand with the Turf Industry Market Development Project, which recently calculated that it reached 4,171,746 people throughout the life of the project. Most pleasingly, in the 2022 survey of turf growers 67% of respondents answered YES to the question "Can you think of any occasions where you have applied information shared via the communications program in your business." Examples given included "sharing content on social media" and "Bushfire retardant project was the

			most useful”. In the Turf Industry Census, conducted under the National Market Development Project, 73% of growers rated the performance of the turf levy as 3 out of 5 or better.
Increase industry awareness and understanding of turf levy funded R&D and marketing activities and outputs.	Outcome 3: Improved farm practices and profitability from increased awareness and adoption of turf R&D	All content created through the program has been designed to increase industry awareness, adoption and practice covering topics from disease management, to energy efficiency and conveying the benefits of living turf. Near 100% of respondents to our annual surveys cite reading the quarterly turf magazine, of which around half the content is typically from levy-funded projects. This implies a high level of awareness for levy funded projects within the turf community.	Findings from the annual turf industry surveys reinforce the outcome that there is increased awareness and understanding of the turf levy activities. Some of the findings which back this point up include: • The Quarterly Magazine is seen as the most important publication with 85% of respondents agreeing it was mostly or always relevant to their needs as a grower • At least 75% of growers said each of the core outputs (magazine, eNews, social media and website) were “Mostly” or “Always” relevant We can also say that there has been an increased awareness in activities based on the exponential (244%) growth of the Facebook page and the high levels of engagement for the Turf Australia eNewsletter.

Monitoring and evaluation

Table 3. Key Evaluation Questions

Key Evaluation Question	Project performance	Continuous improvement opportunities
Is the content we produce relevant and useful for growers?	Our metrics across all our outputs suggest that growers and other audiences are finding our content useful and relevant. Quarterly Magazine: Responses to surveys indicate a high level of engagement and interest in this deliverable, with 85% of growers agreeing eNewsletter: With an average open rate of 39% against an industry benchmark of 23% its clear this output is also well received by growers. This is backed up by surveys which indicate at least 75% of growers find this content useful Social media: Continued growth of our audience by 284% suggests growers are engaged in the content and find it useful Overall survey responses: In previous surveys 74% of respondents has said that the program meets their needs as a grower. This was backed up by the Turf Industry Census, with 73% of respondents scoring the levy 3 out of 5 or higher for value.	Throughout the lifecycle of this project, the majority of the levy-funded projects focused on 'off-farm' activities such as conveying the benefits of living turf. It is expected there will be more of a focus on-farm in the future which will enable to be even more relevant to growers. Consider including questions on communications outputs on future Industry Needs Analysis surveys, which are more robust than surveys conducted under this program. There is an opportunity to improve the visual appeal and subsequent engagement by undertaking a redesign of the eNewsletter template. This communication channel is also effective for distributing event and extension information in future programs.
Is the content produced resulting in practice change amongst growers	In the 2022 survey of turf growers 67% of respondents answered YES to the question "Can you think of any occasions where you have applied information shared via the communications program in your business." Examples given included "sharing content on social media" and "Bushfire retardant project was the most useful".	There is an opportunity to partner very closely with the Turf Industry Development and Extension project to ensure that in the future, communications outputs are directly implemented as part of the national extension program and that growers can achieve practice change as a result.
Were growers actively engaged in the project?	It is clear that growers were actively engaged in levy-funded communications as evidenced by the results indicated above and in the	More regular grower consultation through formal and informal reference groups could help achieve

	results section. Not only was readership high, but high levels of engagement were evidenced through click through rates and also participation in case studies and attendance at levy-funded events such as NxGen	greater industry buy-in
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Recommendations

The Australian turf industry communications program provided a comprehensive approach to communicating the progress and outcomes of levy funded R&D and marketing activities to the primary audience of levy payers.

The quarterly magazine should continue to be prioritized as an industry output, and can be used as a vehicle to share other content and information, liftouts, factsheets or inserts.

It is critical that the future communications project and the National Market Development project work cohesively together. This ensures that communications and extension can work together to ensure practice change, and adoption of best practice R&D.

There is an opportunity to increase the level of engagement of those in the broader industry, such as landscape architects and other relevant greenlife industries to give a better understanding of the challenges and opportunities in this part of the industry sector as well as linking these issues through to what the customer wants.

This can be achieved also through partnership with the extension project, but also through a more sophisticated use of LinkedIn.

A 'rebrand' of turf industry levy related projects could be developed and implemented. A 'This project is brought to you by the turf levy' seal will help ensure that all the benefits that growers see through the communications program are identified as being funded by the levy.

New outputs should be considered, for example the communications project helped amplify a series of videos developed under the National Market Development Project. These videos saw incredibly high levels of engagement.

A more sophisticated media relations program should be explored. Outside of media releases, we should be communicating with important media influencers about levy-funded activity on a regular basis.

At the commencement of the new program, it is recommended that a robust grower survey is undertaken to better understand the key issues and opportunities facing industry, preferred content type, and delivery method which will feed into the development of the next communications strategy under the 2022-25 SIP.

In terms of reporting for the next iteration of the program, it is also recommended that Google Analytics is set up for the website that hosts the content so there is continued analytics and data for developed content and resources.

Intellectual property

No project IP or commercialisation to report

Acknowledgements

Turf Australia acknowledges all project partners including Cox Inall and Grant Nelson Design for their ongoing support and collaboration in delivering this project.

We would also like to acknowledge Hort Innovation as the key enabler of R&D and marketing for Australia's horticultural sector. Hort Innovation has been an active and valued partner and we found it very beneficial to work closely with project providers, to equip levy payers with the latest R&D and marketing outcomes.

Importantly, we would like to thank all industry members who have contributed to the success of this program, including growers, research partners and other industry experts.

It has been a privilege to share the stories of Australia's turf industry.

Appendices

Appendix 1 – MEDIA COVERAGE – The Weekly Times

Appendix 2 – MEDIA COVERAGE – Sydney Morning Herald

Appendix 3 – FACTSHEET – Turf a natural sponge for carbon

Appendix 4 – FACTSHEET – Improving your energy efficiency

Appendix 5 – FACTSHEET – Management of buffalo grass yellowing

Appendix 6 – FACTSHEET – How to manage couch smut

Appendix 7 – FACTSHEET – Bushfire protection benefits of turf

Appendix 8 – FACTSHEET – How the levy is collected

Appendix 9 – MEDIA RELEASE – Living lawns breathing life into Australian cities

Appendix 10 – MEDIA RELEASE – Living lawns and Greenlife can play active role in bushfire management

Appendix 11 – MEDIA RELEASE – Scientific study finds living turf provides line of defence against bushfires

Appendix 12 – SURVEY – 2020 Industry Survey

Appendix 13 – SURVEY – 2021 Industry Survey

Appendix 14 – SURVEY – 2022 Industry Survey



Country Living

Tony Fawcett: New study examines lawn's fire barrier credentials

The ability for a lawn to act as a bushfire barrier has been put to the test. Find out how it fared, and which grass types came out on top.

TONY FAWCETT

3 min read December 30, 2020 - 12:00AM The Weekly Times

0 comments



A fine lawn adds elegance along with some bushfire protection in rural gardens. Picture: Fawcett Media

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COUNTRY gardeners might love their lawns but recently these expanses of green have taken a public beating.

Bad for the environment, chorus the critics.

Water guzzling. Labour intensive. Require polluting mowers.

I'm sure, like me, you have read alarmist stories about how many Olympic-sized swimming pools of water it takes to quench the thirst of Australia's lawns.

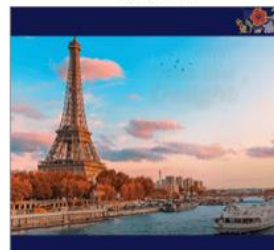
Well now there's good news.

The lawn-obsessed among us can take heart that a study has confirmed lawn is one of the best protections against bushfire.

Yes, most country gardeners have known that for yonks, but at last the science boffins have backed us up.

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For those with such lawns, it offers a sense of security amid dire predictions of fire disasters this summer.

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By introducing fire to various species of growing turf, research company GHD, acting for not-for-profit body Hort Innovation, showed that even lawn under high drought stress is highly resistant to catching fire.

Their testing, involving buffalo, couch and kikuyu lawns, was done in partnership with the CSIRO's Bushfire Behaviour and Risks group near Canberra during hot and dry spring and summer conditions, at a time of widespread bushfires.

A watered, well maintained lawn, it proved, is not combustible under bushfire conditions — and even lawns under high moisture stress are highly resistant to ignition.

The key is keeping your lawn in a green, live state, no longer than 100mm tall and free of leaf litter and other flammable materials.

The standout fire-resistant lawn was buffalo, followed closely together by couch and kikuyu.

With buffalo, 72 ignition attempts were made in the testing to ignite green or partially green turf and none was successful. With dead or dying buffalo lawn, the majority partially dried in an oven, only six ignitions could be achieved out of 72 attempts on a day with severe bushfire danger.

So buffalo seems the go.

LAWN & ORDER

IF YOU don't have lawn around your country home, particularly on the most fire-prone sides, consider it.

High summer is not the time to establish a new lawn but preparation now will have you ready for autumn.

Whether you grow from seed or use instant turf (quicker, but more expensive), the choice is yours.

For a seeded lawn, the soil should be cultivated to about 10cm. If soil is poor, get in a few loads of sandy loam.

Either way, don't skimp on preparation.

Cultivate soil, eliminating all clods, weeds and stones.

When seed sowing, work in lawn starter fertiliser or a handful of blood and bone to each square metre.

Level soil and bed down, preferably with a light roller.

Lightly rake the soil in both directions then use a hand-seeder to distribute seed evenly in both directions.

Lightly walk over soil to ensure seed is in contact with soil.

Water regularly until seed has germinated and lawn is established.

With instant turf, lay from the longest straight line, such as a driveway. Joins are made by butting up edges tightly against one another rather than overlapping.

A popular option is to mix and match lawn strains, selecting varieties that work best for particular parts of a garden.

It's hard to go past buffalo, particularly easy-care and good looking Australian-bred Sir Walter Buffalo strains for general areas.

For larger, full-sun areas, hardy kikuyu, a favourite for golf courses because of its low maintenance, is a good choice. Also consider zoysia species (water frugal, handle diverse conditions), fescue (cool climate, frost hardy) and fine-leaved Bermuda (hardy, good looking in winter).

Above all, love your lawn.

WHAT TO DO THIS WEEK

PLANT autumn bulbs such as nerines, belladonna lilies, lycoris and colchicum.

TRIM lavenders as flowering slows, while not cutting into bare wood because foliage won't regenerate.

GROW beetroot, broccoli, brussels sprout, cabbage, carrot, cauliflower, Chinese cabbage, lettuce and spring onion.



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Re-writing our gum-tree fantasy to fire-proof the future

Robin Powell

January 2, 2021 — 10.03am

Save Share A A A

If the kids were allowed a Christmas concert this year, odds are they sang the perennial primary school favourite *Give me a home among the gumtrees*, and there wasn't a dry eye in the school hall. But after last year's fire season, who really wants a home among the gum trees? We saw – with horror – just how well gums have evolved to use fire to allow their rejuvenation and colonisation. Fallen gum leaves, high in volatile oils, are notoriously slow to break down, providing a ready fuel source. The hanging strands of bark on stringybarks and candlebarks could not be better designed to catch fire and whip it up into the canopy, where the oil in the leaves explodes, showering embers everywhere to burn out competition.



The natural oils in gum leaves make them highly combustible, which is incredibly dangerous during fire season.*CREDIT: NICK MOIR*

After last summer, the song – and our bush house fantasy – needs a rewrite. What we need now is a home among the rainforest trees, with lots of lawn out the front and more out the back.

We're familiar with water-wise gardening; our new climate demands we catch on to fire-wise gardening. A lawn is a good start, according to results of a study at the CSIRO's Pyrotron facility in Canberra. As you'd guess, the Pyrotron is a facility for testing the combustion and spread of bushfires. It's a 25-metre tunnel with a fan capable of producing air movement equivalent to wind speeds of 60 kilometres an hour.



At the CSIRO Pyrotron.*CREDIT: GRAHAM TIDY*

The study, commissioned by Hort Innovation for Turf Australia, and conducted by the CSIRO in collaboration with international sustainability consultancy GHD, involved 221 attempts to set couch, buffalo and kikuyu turf alight. Only dead grass, with extremely low moisture content, burned.

Paul de Mar, natural resources and bushfire management consultant with GHD, says the study showed that "watered and live turf lawns are not combustible under natural conditions associated with bushfires".

"Even lawns that are drought-stressed but provided with just enough water to keep them alive, are highly unlikely to ignite and sustain fire spread," he said.

De Mar says the study backs up the long-held operational knowledge of firefighters that lawns are useful to mitigate fire spread, and provide defensible space near houses.

'Watered and live turf lawns are not combustible under natural conditions associated with bushfires.'

Paul de Mar

In previous droughts, gardeners have been advised to use precious water collected in the shower and sink to keep mature trees alive, but the value of living lawn in mitigating fire risk will make future decisions on where to spend limited water resources an even tougher one.

RELATED ARTICLE



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Fire-retardant trees – those with soft, fleshy leaves; non-fibrous bark; and low levels of volatile oils – can also help slow the spread of fire by capturing flying embers. Native rainforest trees, including lillypillies, figs, and native frangipani *Hymenosporum flavum*, are good choices, and so are exotic garden favorites such as frangipani, hibiscus and camellia. As *Give me a home among the lillypillies* doesn't scan, I'll leave the re-write to John Williams.



Turf: a natural sponge for carbon dioxide

Photosynthesis in turf

Turf farming relies on the sun to generate plant growth through the process of photosynthesis. Photosynthesis is turf's way of converting carbon dioxide from the atmosphere into plant material, using the sun's energy in the process.

During photosynthesis in turf, light energy is captured and used to convert water, carbon dioxide, and minerals into oxygen and energy-rich organic compounds.

That's right, the turf you see on turf farms, on our lawns and on our sporting fields are actively removing harmful carbon dioxide from the earth and replacing it with oxygen, improving air quality for all of us.

How the turf industry stacks up

A Hort Innovation strategic levy-funded project, *An Environmental Assessment of the Australian Turf Growing Industry* (TU16000), studied 30 different turf farms across the country to measure their carbon footprint.

Each grower studied demonstrated strong net sequestration, meaning every single turf farm was reducing the level of carbon in the atmosphere.

Naturally, with any form of farming there will be some offsets to carbon sequestration from activities like energy and fertiliser use, but the level of carbon the each square metre of turf removes is so high, that it more than makes up for it.

On average each square metre of turf removes 2.5kg of carbon dioxide from the atmosphere. Even when offsetting energy use on farm, each turf farmer is still 1.6kg of carbon dioxide per square metre ahead!



The volume of carbon dioxide removed from the atmosphere by each square metre of turf.

But it's not just photosynthesis

Almost every other possible ground cover comes with some form of end-of-life waste disposal problems which contribute negatively to the environment. Artificial materials such as synthetic grass, concrete or asphalt will at some point in their life become worn, torn and unfit for use.

When this happens, the materials must be disposed of and as yet, a viable recycling stream is not yet in operation resulting in artificial materials being trucked around and disposed of in landfill, contributing to poor environmental outcomes.

CHOOSE NATURAL. CHOOSE LIVING. CHOOSE TURF.



Turf: a natural sponge for carbon dioxide

Improving your carbon reduction Information for growers:

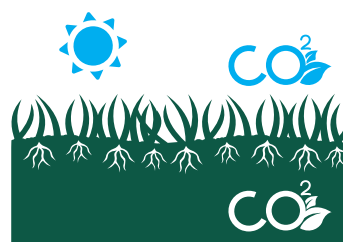
Harvest under ideal conditions



By harvesting under ideal conditions, and reducing turf waste, **growers will not only increase yields and their own bottom line, but sequestered carbon will improve.**

Wasted turf will lose its sequestered carbon during the decomposition process.

Maximise sequestration capacity



A strong, healthy and dense plant will be able to sequester more carbon than a limp and lifeless plant.

It pays to have the right amount of fertilisers to promote healthy plant growth.

You can't manage what you don't measure

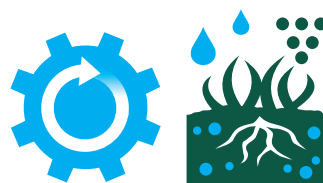


Efficient use of energy and all other farm inputs will reduce wastage and minimise direct and indirect greenhouse emissions.

The first step in energy efficiency is measuring the current usage of electricity by pumps and diesel in tractors as well as use of inputs like pesticides and fertiliser.

Once you have a baseline, you can aim to reduce.

Minimise losses of resources



Every time a resource like water, fertiliser or soil is lost it requires energy to get it back.

By diverting run-off into dams, covering soils and fertiliser with tarps and by using screens to prevent spray drift, you will be running a more energy efficient farm.



Improving your energy efficiency

What is energy efficiency?

Energy costs time, money and resources to produce. So naturally, as turf growers we want to be using as little of it as possible to produce our turf.

A strategic levy funded project *An Environmental Assessment of the Australian Turf Industry with a Lifecycle Assessment (TU16000)*, has explored how energy use is applied on different farms and provides some insights into how to measure energy use and ultimately become more energy efficient.

No two farms are the same

But in the same way that comparing energy use between different cropping types is an invaluable task, the same can be said about different turf farms. A hilly site will require more energy to move equipment, product and irrigation water. The use of bore water takes more energy than river or dam water and a hotter environment will require more irrigation. Economies of scale can also be achieved in larger farms.

Comparison with your own farm is the best way to measure and manage energy efficiency, and by installing correct processes, each farm has the potential to lower its energy bill, improving their bottom line and environmental impact at the same time.

Why is it important?

Not only is energy use one of the most expensive input costs for a turf grower, a less is more approach also improves the turf industry's environmental credentials. The industry already has a good story to tell, with turf sequestering carbon from the atmosphere and improving physical and mental health outcomes for the community. If we can also continue to improve our energy efficiency we will be continuing to add to our good news story.

Improving your energy efficiency

Simple steps to improve farm energy efficiency:

Less diesel more electricity



= 1 x 

The typical turf farm consumes 40x more energy from diesel than electricity. It's also on average, 16x the cost.

Make sure your diesel pumps are serviced regularly and maintained correctly.

Tractors and harvesters

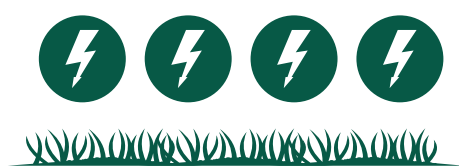


Tractors are usually the biggest consumers of diesel on farm.

To manage energy costs, use machinery optimised for the specific task and avoid vehicles that are unnecessarily large.

Tyre pressure and width should also be optimised for energy use.

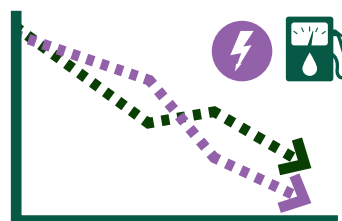
Optimising electric pumps



It is important to know your pumping energy efficiency and monitor it regularly, as a poorly performing pump can cost a lot of money in wasted energy.

Do not use oversized pumps, undersized irrigation mains and ensure your pumping line is as straight as possible.

Measurement is key



Any attempt to improve energy efficiency is only worth doing if you track, measure and analyse changes in energy efficiency.

Growers should keep logbooks for pumps, machinery and other vehicles and refer to them regularly.



Sugarcane mosaic virus

Management of buffalo grass yellowing

Yellowing is a very common disease symptom in grasses, caused by many independent agents. It is important to get good diagnostic advice before applying any treatments. Some common causes of buffalo grass yellowing are described below.

Viruses

Sugarcane mosaic virus has become very common in some turf farming districts, and all major buffalo grass varieties are susceptible to this virus. Panicum mosaic virus, the cause of St Augustinegrass Decline, is less prevalent and appears mainly a problem of specific varieties in the Hawkesbury Valley.

How to tell if your crop is suffering from viral infection

Viral infection is characterised by strong leaf mosaic patterns, narrower leaf blades and shortened internodes. Viral infections can only be properly diagnosed using laboratory tests.

Managing viral infection

- Once a plant is infected with a virus, there is no chemical cure. Prevention is paramount and to eradicate, infected plants must be killed using a herbicide.
- Replant badly affected paddocks using certified, virus-free turf. The paddock should be fallowed for 3 months prior to replanting to ensure all living grass is removed.
- To prevent spread between paddocks, mowers blades should be decontaminated using high-pressure water hoses. It is important to remove residual sap on the mower blades.
- Mow when dry to minimise sap-contamination of the mower blades.



Panicum mosaic virus



Management of buffalo grass yellowing

Fungi

An undescribed species of *Curvularia* has been consistently isolated from plants suffering from a second form of buffalo grass yellowing. *Curvularia* epidemics are favoured by excessive use of nitrogen fertilizers, prolonged moisture and humidity and the build-up of thatch

How to tell if your crop is suffering from fungal infection

The same type of *Curvularia* can cause brown leaf spots and root rotting. Severe cases of buffalo grass yellowing are associated with poor root health, and the roots of affected stolons are blackened and easily break when the stolon is prised from the mat.

Managing fungal infection

- Monitor soil fertility levels using the testing services of an accredited laboratory, and adjust fertiliser program accordingly.
- Green manuring with Caliente mustard mixes improves soil health by increasing carbon levels and acting as a biofumigant.
- Replant with shredded stolons rather than allowing regrowth from old turf ribbons.
- Some fungicides may be effective.

Abiotic factors

Yellowing can be caused by abiotic factors such as high salt levels in the irrigation water, micronutrient deficiencies and superheating of the grass caused by layers of grass clippings.

How to tell if your crop is suffering from other factors

Negative diagnostic tests for pathogens will confirm if yellowing is caused by unrelated issues.

Managing abiotic yellowing

- Soil, plant and water tests should be performed to identify deficiencies and act accordingly.
- Sweeping or vacuuming paddocks after mowing can reduce yellowing.

This factsheet has been developed in consultation with Drs Andrew Geering and Nga Tran at The University of Queensland under the Hort Innovation strategic levy-funded project *Identification and management of mosaic viruses and secondary pathogens in buffalo turf* (TU19000).



Buffalo grass yellowing with Curvularia infection



Curvularia yellowing associated with root rot and leaf spot



How to manage couch smut

Couch smut is a problem for turf growers across the country, with the disease affecting the appearance of turf, its resilience against foot traffic as well as becoming a human health concern as an allergen.

A recently concluded levy-funded project explores this ugly disease and recommends a series of management techniques to help prevent, manage and remove couch smut.

What is couch smut?

Couch smut is caused by the fungus *Ustilago cynodontis* and is one of the most concerning fungal diseases of turf in Australia. Significant economic losses can occur on affected turf farms due to the damage it causes to plants.

Couch smut is a national problem, with records of the disease from every State and mainland Territory of Australia.

Why is couch smut so harmful?

- Infection causes a reduction in the rate of stolon extension and overall dry matter production by up to 50%. The strength of the root mat is weaker, and during harvest, the turf roll has a greater tendency to break at points of infection, causing increased wastage.
- Infection reduces the turf's tolerance to foot traffic, which is particularly a concern for sporting fields.
- Infected plants have a yellower appearance and more upright growth habit, which spoils the appearance of the turf, particularly for more prostrate cultivars.
- The smut spores sully shoes and clothing, and can induce allergic reactions in some people.

Managing couch smut*

- **Spot spray diseased plants with herbicide** when the incidence of infection is low.
- **Use cultivars that have disease resistance.** Field observations suggest that *C. dactylon* × *C. transvaalensis* hybrids are resistant to couch smut and therefore could be used as replacement cultivars for paddocks with high incidences of the disease.



Close up of smutted inflorescence

- **Systemic fungicide formulations such as Azoxystrobin 62g/L combined with Propiconazole 104g/L** show promise to help eradicate couch smut but additional field trials are required to provide the data needed to extend the registration of this fungicide for use on *U. cynodontis*.
- **Clean mowers when moving between paddocks** to reduce spread of the fungus, as spores produced from smutted plants can be carried with the tools.
- The project discovered that couch smut affects the entire plant, meaning that **mowing smutted turf will have no impact on the disease.**

**These recommendations are preliminary in nature as more work is required to fully resolve complete management plans for a complex disease like couch smut.*

*This factsheet has been developed in consultation with Dr Andrew Geering at the University of Queensland under the Hort Innovation strategic levy-funded Improved capacity for integrated disease management of couch smut (*Ustilago cynodontis*) in turf' (TU17002).*



Bushfire protection benefits of turf

A history of turf as a bushfire retardant

It is common to observe that where bushfires have spread into a community, green turf appearing on natural lawns across the country will stop the spread of surface fire from bushfire-prone vegetation to fire-vulnerable assets. Live turf does not sustain surface fire spread.

Even where turf is dead and very dry, the low biomass of mown turf means that to the extent any fire spread is sustained, fire can only burn at very low intensity and is readily controlled and extinguished.

Turf as a strategic component of bushfire prevention

Living turf has long been recognised by fire agencies as a desirable component of landscaping to prevent or reduce damage from bushfire. Turf has the further benefit of providing a defendable space from which firefighters can seek to protect properties.

In the Australian Standard 3959 Construction of buildings in bushfire-prone areas, managed turf is not considered a bushfire hazard. Land areas across which the principal vegetation cover is live turf, such as sports fields, maintained lawns, golf courses and other managed grasslands are termed low threat vegetation.

The Victorian CFA's *Landscaping for Bushfire* guide also describes the benefits of turf and its maintenance requirements to reduce bushfire risk. All natural turf varieties actively grow in summer which means it is able to be maintained in a green, healthy state over the peak bushfire season in Australia.

This makes turf an ideal groundcover for use in Asset Protection Zones.

Proving its importance through science

A Hort Innovation strategic, levy-funded project saw GHD and the CSIRO recently conducted a series of experiments in the CSIRO Pyrotron in Canberra attempting to ignite turf samples using simulated embers at a variety of leaf moisture contents and using three different wind speeds.

Experimental conditions were designed in order to represent typical bushfire conditions of hot days and low relative humidity. The ignition source was a lit cotton ball injected with ethanol. Ignitions which spread more than 20 cm were deemed 'sustained ignitions'.





Bushfire protection benefits of turf

Buffalo A total of six out of 72 ignition attempts were sustained, four of which were at extremely dry moisture content (<5% ODW), attained through partial oven-drying.



91.7% samples were not able to be ignited

Wind speed setting	Extremely dry (<5% ODW)	Very dry (5-10% ODW)	Dry (10-20% ODW)	Dying (>20% ODW)
Calm	14.3% (1 out of 7)	0% (0 out of 8)	0% (0 out of 10)	0% (0 out of 3)
Moderate	23.1% (3 out of 13)	0% (0 out of 7)	0% (0 out of 10)	0% (0 out of 3)
Strong	0% (0 out of 4)	0% (0 out of 3)	28.6% (2 out of 7)	0% (0 out of 3)



Couch A total of ten out of 66 ignition attempts were sustained, all of which were at extremely dry or very dry moisture content (<10% ODW), attained through partial oven-drying.



84.8% samples were not able to be ignited

Wind speed setting	Extremely dry (<5% ODW)	Very dry (5-10% ODW)	Dry (10-20% ODW)	Dying (>20% ODW)
Calm	33.3% (1 out of 3)	5.9% (1 out of 17)	0% (0 out of 1)	0% (0 out of 3)
Moderate	100% (3 out of 3)	15.4% (2 out of 13)	0% (0 out of 6)	0% (0 out of 3)
Strong	50% (2 out of 4)	11.1% (1 out of 9)	0% (0 out of 1)	0% (0 out of 3)

Leaf blade moisture contents are expressed as mass of water as a percentage of oven-dried weight (ODW) of a sample.

Kikuyu Both short and uncut kikuyu was tested, with varying results. 13 out of the 41 uncut kikuyu ignitions sustained, compared to two sustaining ignitions out of 42 attempts in the short cut kikuyu.



82.0% samples were not able to be ignited

Kikuyu turf (dead) results for uncut (approx. 40 mm) and short cut (approx. 12 mm) samples

Length	Wind speed setting	Extremely dry (<5% ODW)	Very dry (5-10% ODW)	Dry (10-20% ODW)	Dying (>20% ODW)
Uncut	Calm	100% (1 out of 1)	100% (1 out of 1)	45.5% (5 out of 11)	0% (0 out of 2)
Uncut	Moderate	-	-	22.2% (2 out of 9)	0% (0 out of 4)
Uncut	Strong	-	100% (1 out of 1)	33.3% (3 out of 9)	0% (0 out of 3)
Short	Calm	0% (0 out of 3)	0% (0 out of 4)	0% (0 out of 7)	-
Short	Moderate	50% (1 out of 2)	0% (0 out of 5)	0% (0 out of 10)	-
Short	Strong	50% (1 out of 2)	0% (0 out of 5)	0% (0 out of 4)	-

INFORMATION FOR CONSUMERS:

How to make sure your turf remains bushfire safe:

Water turf

to keep it in a green, live state



Keep the turf cleared

of leaf litter and other flammable materials



Keep the turf short

– no longer than 100mm



Install the turf correctly

to promote a well-formed root system, this will make the turf more likely to retain moisture in dry periods



Contact Turf Australia for more information.
www.turfaustralia.com.au

Turf Australia 
 GROW GREEN

How the **turf levy** is collected

Many growers will be familiar with the **Hort Innovation Turf Levy**. But how much do you know about the path that levy funds take from farmgate the allocation of research and development projects and the role of the key players along the way?

Turf growers

Every turf grower selling more than **20,000 m² of turf in any year**, is required to pay the levy at 1.5cents per m².



Collection agents

Responsible for **collecting levies and charges and submitting levy returns** to the DAWE on behalf of levy payers.



FACTS ABOUT THE TURF LEVY

1. R&D contributions are matched 1:1 with funds from the Australian Government
2. Turf Australia is not the collector or administrator of the turf levy
3. The levy is not a tax – you have a say in how it is invested
4. Levy funds are used to investigate pest and disease issues, communicate the benefits of turf and improve on-farm productivity

Industry Body

Turf Australia is the Prescribed Industry Body for the turf levy, which supports the setting, changing and allocation of the levy across the levy funded activities. This is a consultative role only.



Department of Agriculture, Water and the Environment (DAWE)

DAWE is responsible for administering levy legislation, receiving the levy returns from collection agents, paying the levies to Hort Innovation and conducting compliance inspections.



Minister for Agriculture, Drought and Emergency Management

The Minister decides whether to progress changes to levies, or introduce new levies, through the appropriate legislative pathway and consultation with industry.



Hort Innovation

Hort Innovation is the levy recipient body for the turf levy. In consultation with The Turf Strategic Investment Advisory Panel (SIAP), made up of growers and industry stakeholders advises Hort Innovation on the allocation of levy funds. Hort Innovation then manages the allocation of funds into research and marketing projects to grow and develop the Australian turf industry.



Marketing and R&D Projects



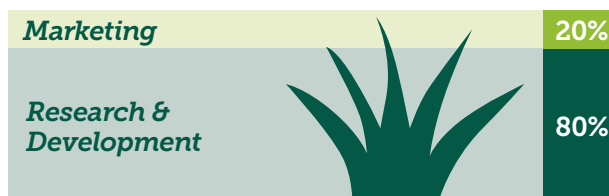
How the **turf levy** is collected

Background on the turf levy

- In 2006, the turf industry voted to implement a compulsory levy.
- **The levy is collected by the Australian Government and then managed by Hort Innovation.** It is the responsibility of Hort Innovation to work with industry to invest the levies.
- **Turf Australia liaises with Hort Innovation to represent its members**, and help determine appropriate and strategic levy investments which include industry development, research and marketing initiatives.
- **The levy rate is 1.5 cents per square metre of turf.** This amount is payable to the Federal Department of Agriculture – Levies by all businesses that grow and sell more than 20,000 square meters of turf in any year.
- The levy investment ratio is **80% research and development** (these funds are then matched by the Government), **20% marketing**. 

How are levy investments decided?

- Investments are guided by the industry's **Strategic Investment Plan (SIP)**.
- The SIP guide Hort Innovation's oversight and management of individual levy industry investment programs. **The SIP lays the foundation for decision making in levy investments.**
- The most important function of the SIP is to make sure that levy investment decisions align with **industry priorities**.
- In addition to the formal strategic investment plan, **all growers are encouraged to share thoughts and recommendations with Hort Innovation** and can do so by contacting a Hort Innovation employee directly or filling out the Grower Investment Ideas Form on the Turf Australia or Hort Innovation website.



Achievements of the turf levy

[H2] Conveying the benefits of living turf

Levy funded projects *Conveying the benefits of living turf - a bushfire retardant* (TU17008) and *Conveying the benefits of living turf – mitigation of the urban heat island effect* (TU18000), have been able to prove, with the robust backing of scientific investigation the ways that turf can improve the lives of entire communities by making our cities safer and more liveable.

For example, it found that turf can not only prevent bushfire spread in peri urban areas but also cools down urban environments by up to 4.9°C.

These findings can be used by growers and by Turf Australia to advocate for greater investment in turf by government and local council.

[H2] Understanding the true value of turf

The levy funded project *Economic, environmental, social and health impacts and benefits of the turfgrass and lawncare industries* (TU17006) used economic modelling to identify the ways that turf holds real value for homeowners. **For example, it found that installing turf can fetch rental properties an additional \$4.45 per square metre** in a city like Sydney.

[H2] Bringing us together

Levy funds are used to help the Turf Industry become a cohesive, collaborative industry. For example, the NxGen Conference which has helped develop our industry's rising talent is subsidised through levy-funds. Many of our current industry leaders are alumni or current participants of the NxGen event.

The National Market Development Program (TU16002) led by Jenny Zadro, and **Turf Industry Communications Program** (TU16004) which funds the development of resources such as this are also levy-funded projects.

A full list of levy-funded projects and their outcomes are available on the Turf Australia website

MEDIA RELEASE

Living lawns breathing life into Australian cities

Sydney, Australia, August 12 – New research has determined that a 200 square metre patch of lawn can produce enough oxygen to support between 12 and 18 people in Australia.

The study was conducted by Turf Producers International and The Lawn Institute and used complex weather data in 31 cities worldwide including Australia's five largest cities, Adelaide, Brisbane, Melbourne, Perth and Sydney. The data was able to track changes in oxygen levels in the atmosphere, cross referenced against the area of turf cover.

Casey Reynolds, Executive Director, Turf Producers International, explained that the oxygen is produced through same photosynthesis process that sees trees and forests convert carbon dioxide to oxygen.

"One of the basic inputs in the photosynthetic process is atmospheric carbon dioxide," he said.

"This is the source of carbon that is later converted into sugars and carbohydrates for plant growth. As plants extract carbon dioxide from the atmosphere, they sequester in in the lawn where it is stored for growth.

"This is good for humans because it is removed from the atmosphere and as such, turf lawns serve as an important sink for carbon in developed cities.

"Turf lawns exhibit an enormous rate of carbon sequestration in their first 25-30 years after establishment and several research studies have reported that residential lawns can store up to twice the amount of organic carbon beneath them than can agricultural soils."

"Given that 200 square metres is approximately the average size of a home lawn in suburban Australia, and that the average family size is much lower than 12-18 people, its safe to say that installing home lawn has a net positive benefit when it comes to breathing life into our cities.

These findings are the latest string to the bow of environmental benefits that living turf provides to Australian communities.

Recently, a Hort Innovation strategic levy-funded project found that living turf acted as a natural bushfire retardant.

The study found that samples of three of the most common types of grass in Australian households: buffalo, couch and kikuyu are all highly resistant to ignition by embers, with even dead turf under severe moisture stress proving difficult to ignite in ignition experiments conducted at the CSIRO's Pyrotron facility in Canberra.

A separate Hort Innovation funded project identified the cooling properties of turf, which can help mitigate the urban heat island effect.

That research found that on average irrigated natural turf measured 4.9°C cooler than the baseline average surface temperature across study sites in New South Wales, Victoria and South Australia.

Long pile synthetic turf was one of the hottest surfaces in the landscape measuring nearly 11°C hotter than the baseline average. These figures show that irrigated natural turf could be 15°C cooler than synthetic turf.

Jenny Zadro, market development manager, Turf Australia says that the latest research from Turf Producers International rounds out the environmental picture for turf lawns in Australia.

"Over the last few years, science has backed our long-held understanding of the benefits of living turf. Whether it be producing the oxygen that supports our population, protecting against natural disasters, or keeping our cities cool, it's clear that living turf is the most desired surface from an environmental perspective.

"As our climate becomes more unpredictable, and we become more urbanised, specifiers and homeowners alike should be considering turf, first and foremost in any new designs.

For more information on the benefits of living turf, [check out this video](#) or for a closer look at turf's environmental credentials, [check out this video](#).

ENDS

The 'Industry extension and development of Conveying the benefits of living turf – a bushfire retardant (TU17008) project is funded by Hort Innovation using turf research and development levy and funds from the Australian Government.

The 'National market development program for the Australian turf industry (TU16002) project is funded by Hort Innovation using nursery research and development levy and funds from the Australian Government.

Conveying the benefits of living turf - mitigation of the urban heat island effect (TU18000) project is funded by Hort Innovation using nursery research and development levy and funds from the Australian Government.

MEDIA RELEASE

Living turf and greenlife can play active role in bushfire management

Homeowners and business owners looking to protect their property from fires this bushfire season should consider the benefits of having natural turf and fire-wise greenlife around their property according to recent research conducted by GHD and CSIRO and commissioned by Hort Innovation for Turf Australia.

The study found that samples of three of the most common types of grass in Australian households: buffalo, couch and kikuyu are all highly resistant to ignition by embers, with even dead turf under severe moisture stress proving difficult to ignite in ignition experiments conducted at the CSIRO's Pyrotron facility in Canberra.

The study saw repeated attempts to light the three species of grass under typical bushfire season conditions. Various wind speeds were tested as were different levels leaf-blade moisture, achieved through naturally drying the turf, and even oven-drying to test extreme low moisture conditions. Leaf-blade moisture is expressed in "Oven Dried Weight" (ODW) which refers to the amount of water in the sample as a percentage of its oven-dried weight.

After 221 ignition attempts in the Pyrotron facility only 14% of the samples were able to sustain ignition, all of those successful ignitions occurring in dead grass with less than 20% leaf-blade moisture. No live samples sustained ignition.

Paul de Mar, Natural resources and bushfire management consultant with GHD said the findings are clear and unequivocal.

"These findings tell us that watered and mowed live turf lawns are not combustible under natural conditions associated with bushfires. Even lawns that are drought-stressed but provided with just enough watering to keep them alive, are highly unlikely to ignite and sustain fire spread. Essentially, for a lawn to ignite and sustain fire spread it needs to be dead and subject to extremely low moisture content" he said.

"The findings also reinforce what has been known anecdotally for some time.

"It is common in post-bushfire impacted areas to observe green, or partially green lawns remaining largely undamaged by fire surrounding either unburnt houses, or burnt houses where airborne ember attack has directly impacted the house but the surrounding lawn remains unburnt.

"Similarly, it backs up the long-held operational knowledge of firefighters; that lawns are useful both to mitigate fire spread, and for providing defensible space near houses. Lawns and walkways are a form of firebreak, which interrupt the path of surface fire spread – they can't stop airborne embers, but they can provide defensible space from where such embers can be safely put out."

The use of fire-retardant trees in bushfire prone areas is also beneficial and if placed in appropriate locations can assist in reducing bushfire risk to homes, in particular by blocking some of the ember attack.

Trees with the best fire-retardant properties are those with soft or fleshy leaves, with a high moisture content, tightly held non-fibrous barks, and low in volatile oils. Common native garden trees like the Lilly Pilly (and other rainforest plants), native frangipani, native figs, saltbushes, butterbush or kurrajong trees all have fire retardant properties. Common introduced garden plants such as camelias, rhododendrons, frangipani, hibiscus and many fruit trees, as well as common hedging plants such as photinia and viburnum are also suitable. Succulents are particularly good and suitable in garden beds with pebble mulch. However, trees and shrubs with dense foliage that retain lots of dry or waxy leaves, needles, twigs or other readily flammable material, have loose flaky or fibrous bark, or which have dense, fine foliage with a low moisture content should be avoided in bush fire zones.

The nursery industry is investing in natural disaster management through its current project *Nursery industry natural disaster risk mitigation and recovery plan* (NY18008), which is using insights from production nurseries to develop checklists, risk maps and business continuity templates that will assist nurseries as well as their customers in the preparedness, recovery and resilience of natural disasters and severe weather events.

The findings of the project will help assist both production nurseries and consumers of greenlife achieve the best environmental outcomes for the production and management of plants.

The environmental and health benefits of plants, trees and turf are increasingly on the agenda of local governments looking to improve community greenspaces. These research projects highlight the benefit that living greenspaces, when curated appropriately, can both resist fire and restore landscapes in bushfire affected zones.

According to Paul de Mar, it's important to remember that firewise landscaping and plant selection will reduce bushfire risk best in combination with other important actions like removing combustible materials, dead plants and leaf litter from around your home and from your roof and gutters, maintaining your home in an ember-tight condition, and preparing a Bushfire Survival Plan.

"There are other things to consider when developing a bushfire plan - whether it be for a home or business, including selection of fire resistant building and landscaping materials, and evacuation planning.

"However, the role of greenlife and turf in fire-wise design creating defensible space cannot be understated."

For more information on GHD's research findings and CSIRO's Pyrotron experiments check out this [fact sheet](#) or [click here](#) to access the full report on the Hort Innovation website.

For more information about the nursery industry's investment in natural disaster risk mitigation check out this [Nursery Paper](#)

ENDS

The 'Industry extension and development of Conveying the benefits of living turf – a bushfire retardant (TU17008) project is funded by Hort Innovation using turf research and development levy and funds from the Australian Government.

The 'Nursery industry natural disaster risk mitigation and recovery plan (NY18008) project is funded by Hort Innovation using nursery research and development levy and funds from the Australian Government.

Scientific study find living turf provides line of defence against bushfires

Research into the bushfire retardant properties of turf has concluded with findings indicating that three of Australia's common turf varieties are highly resistant to ignition from fire cementing the important role that turf can play in halting the spread of bushfires in peri-urban environments.

The Hort Innovation strategic levy-funded project, conducted by global professional services company GHD, saw samples of live turf tested for ignition properties at the Pyrotron, the CSIRO's national bushfire research facility in Canberra.

The project team performed tests to assess the bushfire protection benefits of buffalo, kikuyu and couch. Grass samples were tested using attempted ignitions of the turf types at varying fuel moisture levels and at various lengths.

Ultimately, the study found that only dead or incredibly dry turf was capable of sustaining ignition but that the low biomass of mown turf means that any ignition sustained can only burn at low intensity and is easily controlled or extinguished (full results of the experiments are available [here](#)).

Paul de Mar, project lead, GHD said "The research tells us that watered and mowed lawns are not combustible under any conditions associated with bushfires unless they are completely dead and have extremely low moisture contents.

"Watered and mowed lawns provide a healthy and clean environment which can make an important contribution to creating a defensible space around homes and infrastructure in bushfire prone areas."

With the Black Summer fires of 2019/2020 still fresh in the minds of Australian policy-makers and homeowners, the research provides important context for bushfire mitigation strategies, according to Byron de Kock, Head of research and development at Hort Innovation.

"This research is very timely following on from Australia's fires this summer. Knowing that living turf can be used effectively to help defend Australian homes from fire and having this proven by science is paramount as we look to the next fire season."

This research backs up what fire agencies have known internally for some time, that live turf is known operationally to both mitigate fire spread, and is a favoured means of providing defensible space near houses, to allow safe defence of properties.

Lawns and are a form of firebreak, which interrupt the path of surface fire spread – they can't stop airborne embers but they can provide defensible space from where such embers can be safely put out.

The research was conducted under the Hort Innovation strategic, levy-funded project *Conveying the benefits of living turf – a bushfire retardant* (TU17008).

Q1

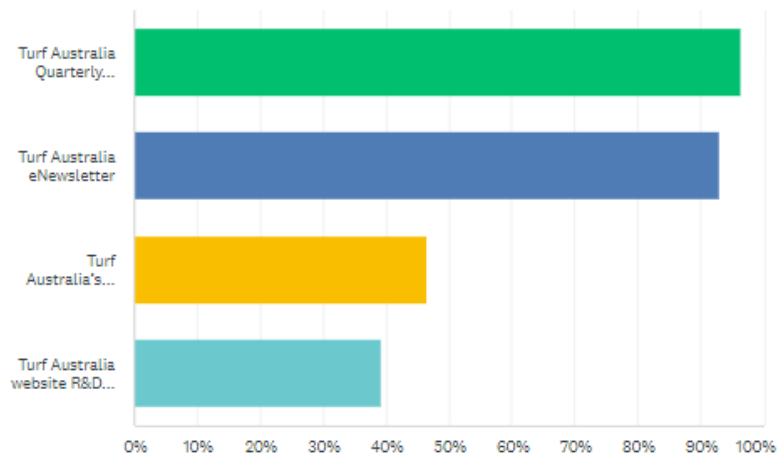


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Do you recognise any of the following industry communications project outputs:

Answered: 28 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Turf Australia Quarterly Magazine	96.43%	27
▼ Turf Australia eNewsletter	92.86%	26
▼ Turf Australia's Growers Facebook page	46.43%	13
▼ Turf Australia website R&D pages	39.29%	11
Total Respondents: 28		

Q2

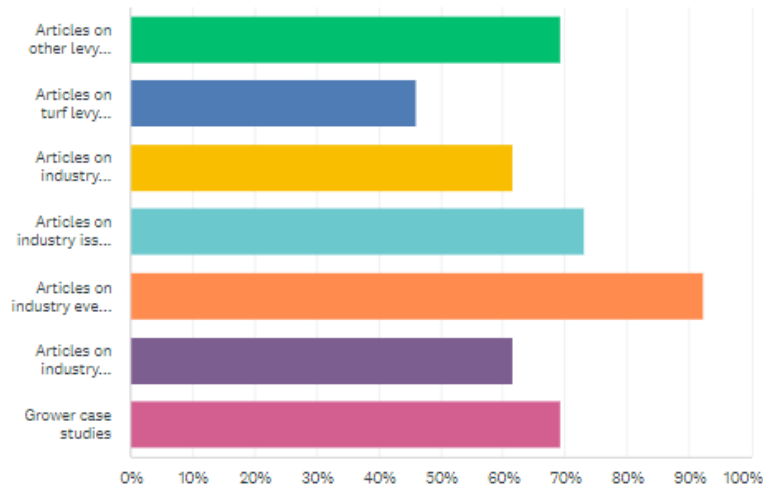


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Thinking about the INDUSTRY MAGAZINE - Do you recall seeing or reading any of the following in the magazine?

Answered: 26 Skipped: 2



ANSWER CHOICES	RESPONSES	
▼ Articles on other levy funded research and development projects	69.23%	18
▼ Articles on turf levy funded marketing activities	46.15%	12
▼ Articles on industry production and business management	61.54%	16
▼ Articles on industry issues (e.g drought, disease)	73.08%	19
▼ Articles on industry events (conferences, field days)	92.31%	24
▼ Articles on industry development (Updates from Turf Australia and state bodies)	61.54%	16
▼ Grower case studies	69.23%	18
Total Respondents: 26		

Q3

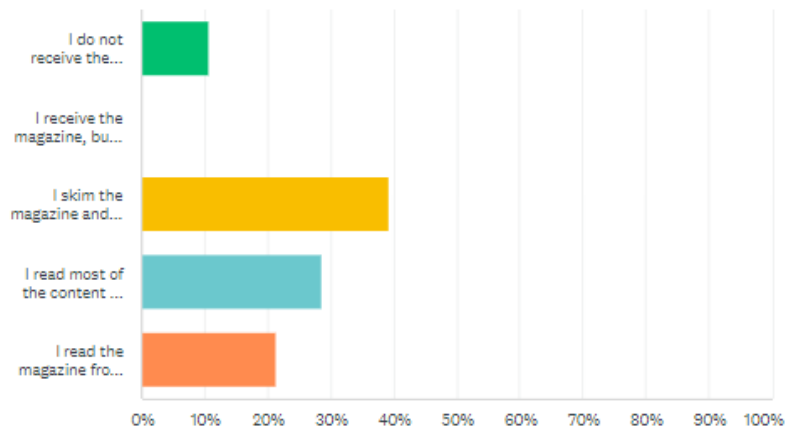


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Q4: Which of these options best describes your engagement with the INDUSTRY MAGAZINE?

Answered: 28 Skipped: 0



ANSWER CHOICES	RESPONSES	
I do not receive the magazine	10.71%	3
I receive the magazine, but rarely read it	0.00%	0
I skim the magazine and read the article which specifically interest it	39.29%	11
I read most of the content in the magazine	28.57%	8
I read the magazine from cover to cover	21.43%	6
TOTAL		28

Q4

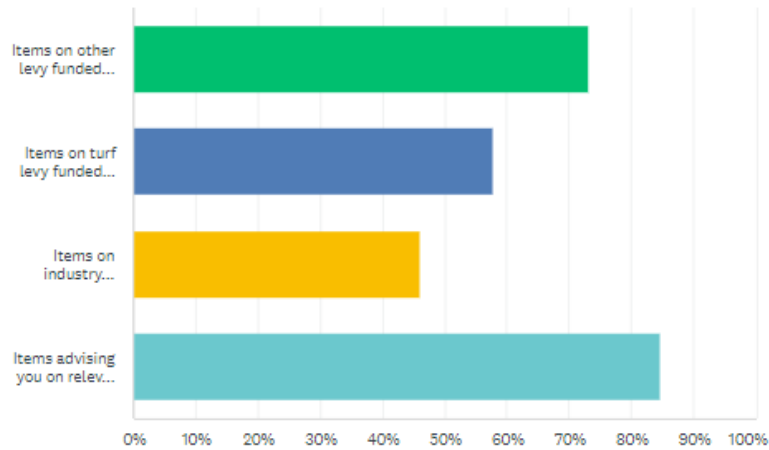


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With regard to the MONTHLY eNEWSLETTER - Do you recall seeing and reading any of the following items?

Answered: 26 Skipped: 2



ANSWER CHOICES	RESPONSES	
▼ Items on other levy funded research and development projects	73.08%	19
▼ Items on turf levy funded marketing activities	57.69%	15
▼ Items on industry production and business management	46.15%	12
▼ Items advising you on relevant industry events	84.62%	22
Total Respondents: 26		

Q5

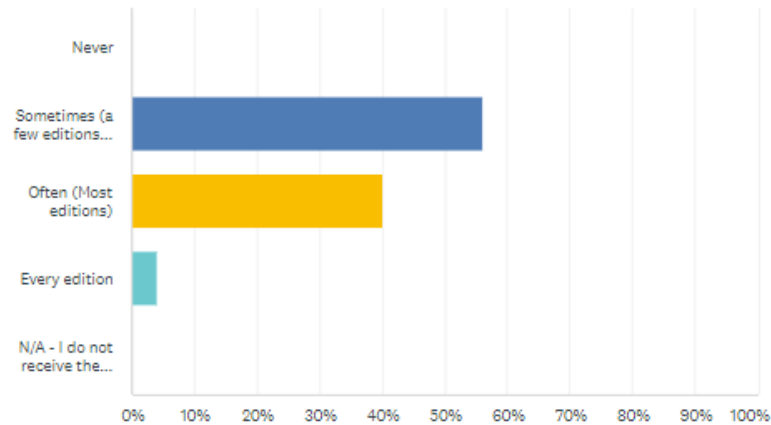


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Thinking about the MONTHLY eNEWSLETTER – how often do you click through to a link provided on the stories to read more about the article, or link to the source?

Answered: 25 Skipped: 3



ANSWER CHOICES	RESPONSES	
▼ Never	0.00%	0
▼ Sometimes (a few editions per year)	56.00%	14
▼ Often (Most editions)	40.00%	10
▼ Every edition	4.00%	1
▼ N/A - I do not receive the MONTHLY eNEWSLETTER	0.00%	0
TOTAL		25

Q6

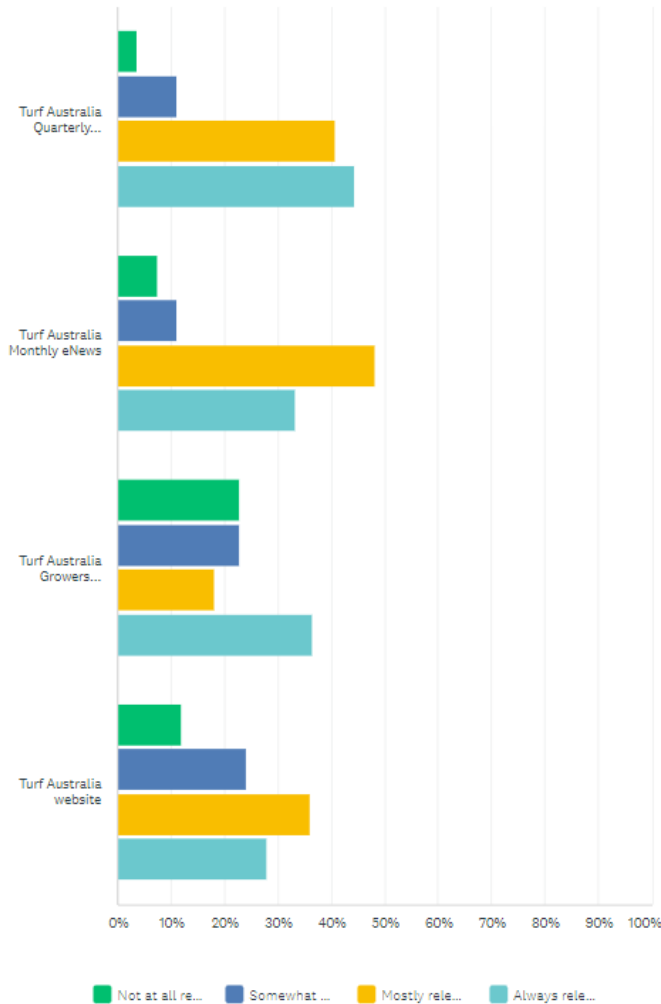


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OVERALL - How satisfied are you that these outputs contain information that is relevant to you as a grower, and your turf business?

Answered: 28 Skipped: 0



	NOT AT ALL RELEVANT	SOMEWHAT RELEVANT	MOSTLY RELEVANT	ALWAYS RELEVANT	TOTAL
▼ Turf Australia Quarterly Magazine	3.70% 1	11.11% 3	40.74% 11	44.44% 12	27
▼ Turf Australia Monthly eNews	7.41% 2	11.11% 3	48.15% 13	33.33% 9	27
▼ Turf Australia Growers Facebook page	22.73% 5	22.73% 5	18.18% 4	36.36% 8	22
▼ Turf Australia website	12.00% 3	24.00% 6	36.00% 9	28.00% 7	25

Q7

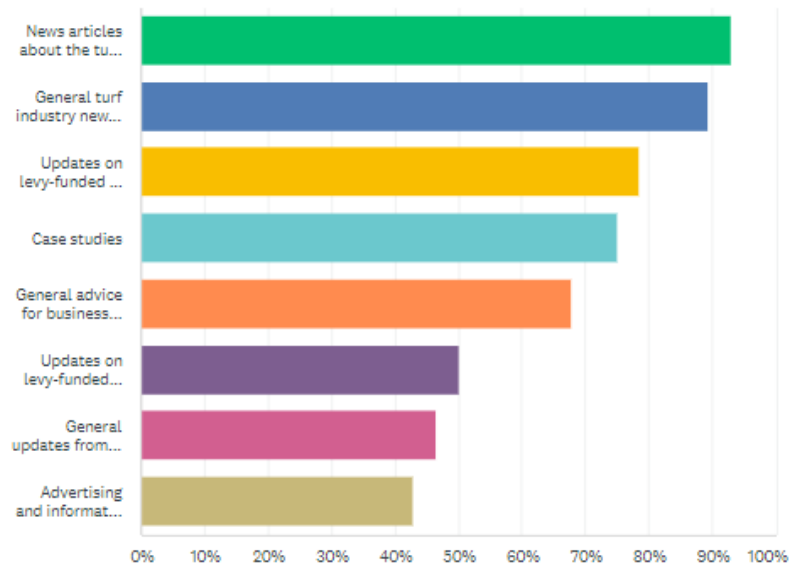


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OVERALL – what type of content are you most interested in seeing delivered via communications outputs (Not at all interested/Somewhat interested/Very interested)

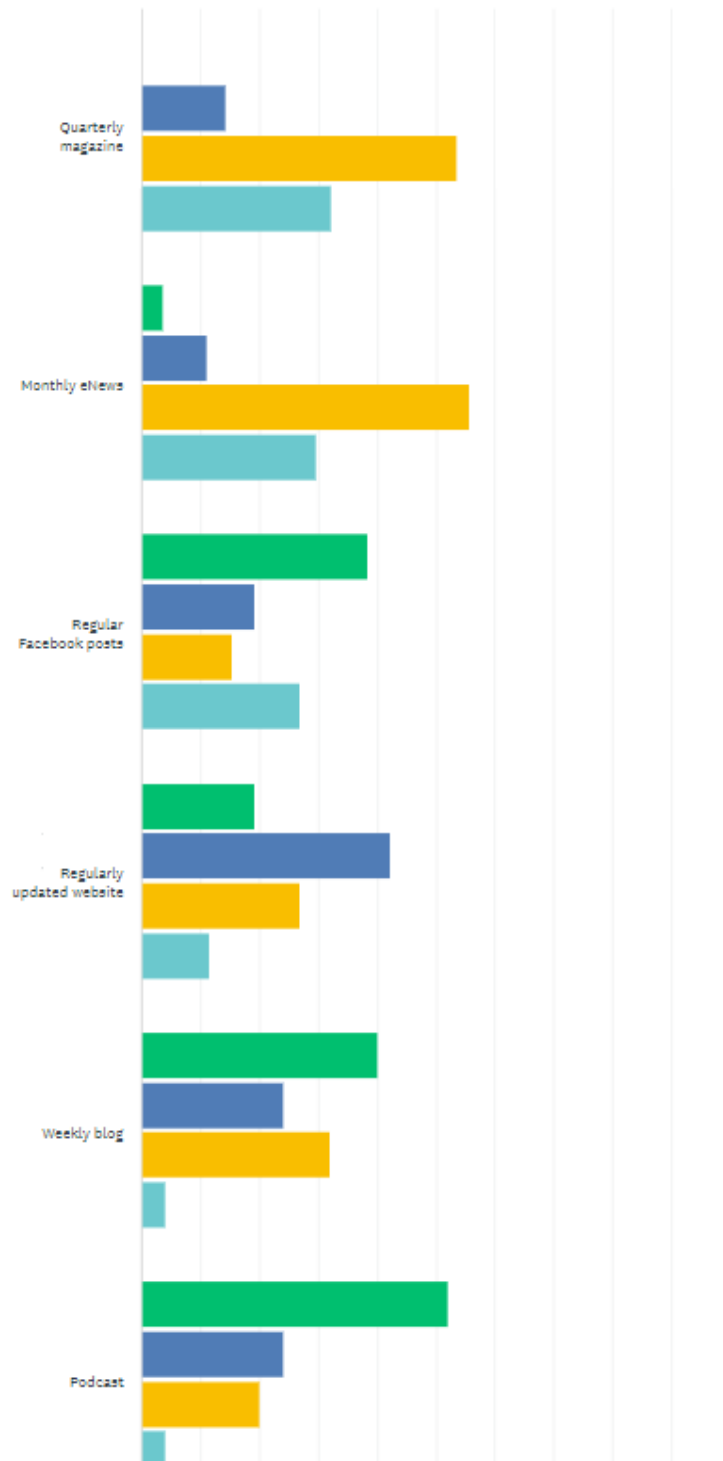
Answered: 28 Skipped: 0



ANSWER CHOICES ▼	RESPONSES ▼	
▼ News articles about the turf industry	92.86%	26
▼ General turf industry news and events	89.29%	25
▼ Updates on levy-funded R&D projects	78.57%	22
▼ Case studies	75.00%	21
▼ General advice for business owners and managers	67.86%	19
▼ Updates on levy-funded marketing projects	50.00%	14
▼ General updates from Hort Innovation and the wider agriculture industry	46.43%	13
▼ Advertising and information on new products	42.86%	12
Total Respondents: 28		

OVERALL – Which of the following existing or hypothetical channels are you most likely to engage with?

Answered: 28 Skipped: 0



	NOT AT ALL LIKELY TO ENGAGE	SOMEWHAT LIKELY TO ENGAGE	LIKELY TO ENGAGE	VERY LIKELY TO ENGAGE	TOTAL	WEIGHTED AVERAGE
Quarterly magazine	0.00% 0	14.29% 4	53.57% 15	32.14% 9	28	2.86
Monthly eNews	3.70% 1	11.11% 3	55.56% 15	29.63% 8	27	2.81
Regular Facebook posts	38.46% 10	19.23% 5	15.38% 4	26.92% 7	26	2.04
Regularly updated website	19.23% 8	42.31% 11	26.92% 7	11.54% 3	26	2.19
Weekly blog	40.00% 10	24.00% 6	32.00% 8	4.00% 1	25	1.96
Podcast	52.00% 13	24.00% 6	20.00% 5	4.00% 1	25	1.72
Comments (0)						

Q9

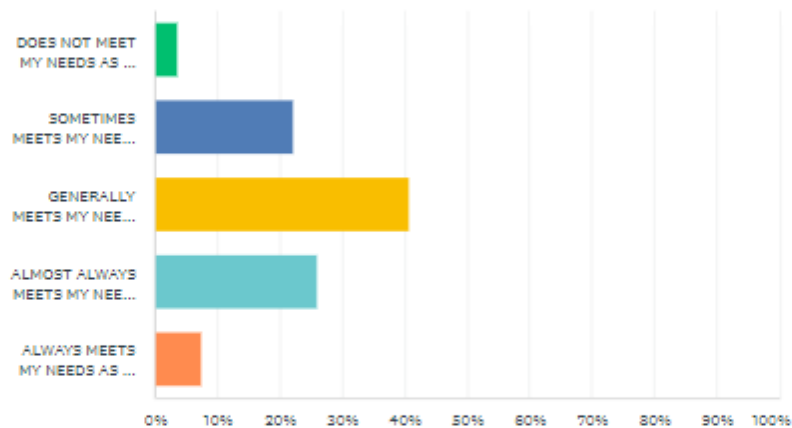


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OVERALL, how well do you feel the combination of outputs delivered by the Industry Communications Project TU16004 (magazine, eNewsletter, Facebook page, website R&D pages) meet your needs for information as a grower?

Answered: 27 Skipped: 1



ANSWER CHOICES	RESPONSES	
DOES NOT MEET MY NEEDS AS A GROWER	3.70%	1
SOMETIMES MEETS MY NEEDS AS A GROWER	22.22%	6
GENERALLY MEETS MY NEEDS AS A GROWER	40.74%	11
ALMOST ALWAYS MEETS MY NEEDS AS A GROWER	25.93%	7
ALWAYS MEETS MY NEEDS AS A GROWER	7.41%	2
TOTAL		27

Q1

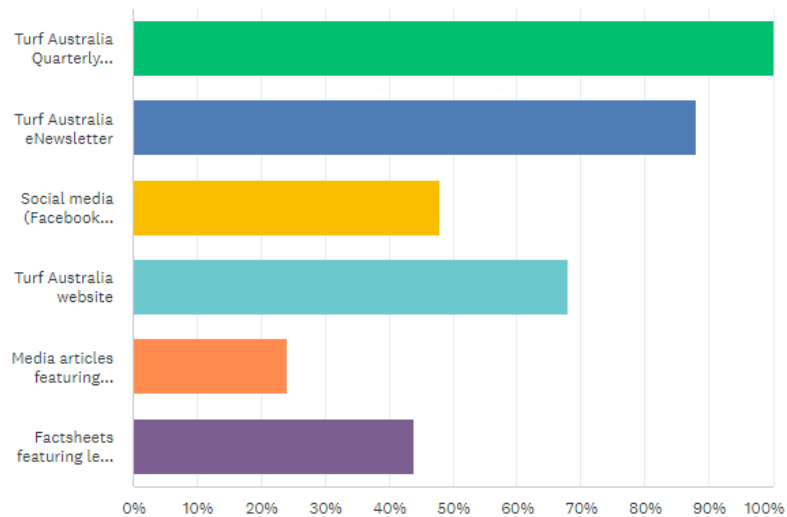


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Do you recognise any of the following industry communications project outputs:

Answered: 25 Skipped: 0

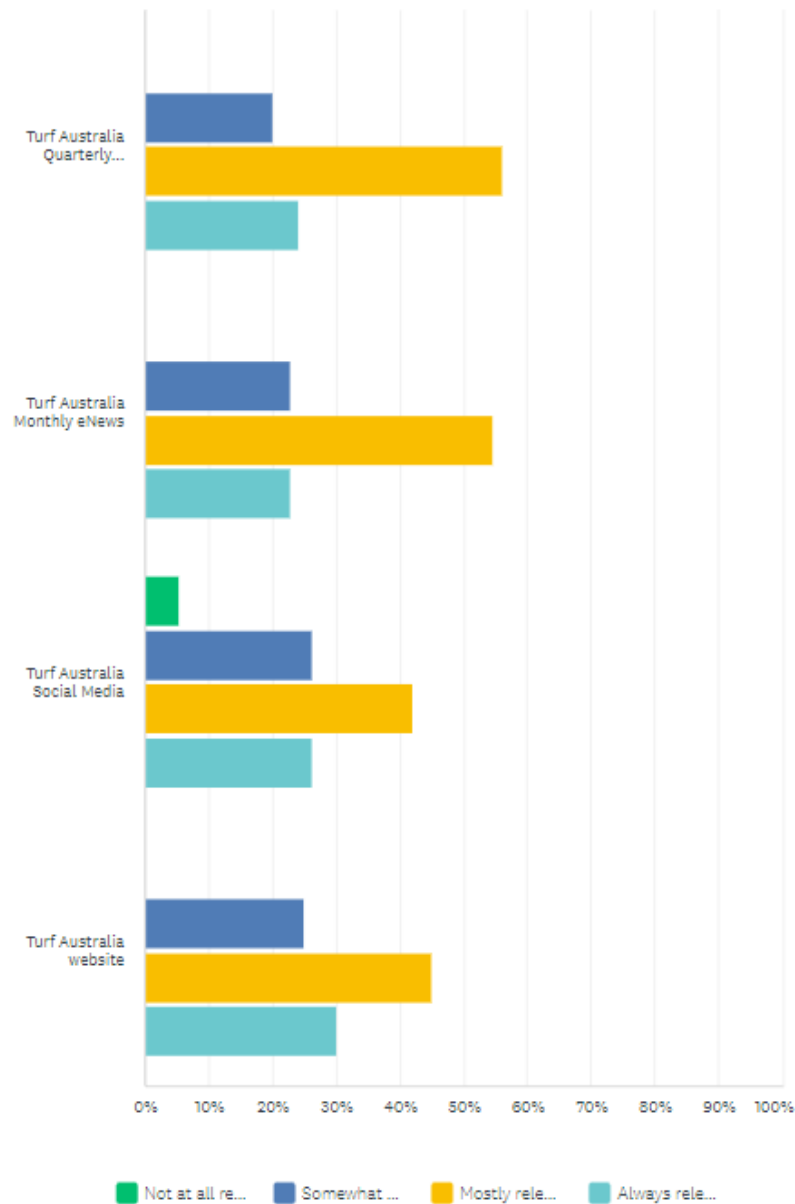


ANSWER CHOICES	RESPONSES	
▼ Turf Australia Quarterly Magazine	100.00%	25
▼ Turf Australia eNewsletter	88.00%	22
▼ Social media (Facebook and/or Twitter)	48.00%	12
▼ Turf Australia website	68.00%	17
▼ Media articles featuring levy-funded research	24.00%	6
▼ Factsheets featuring levy funded research	44.00%	11
Total Respondents: 25		



OVERALL - How satisfied are you that these outputs contain information that is relevant to you as a grower, and your turf business?

Answered: 25 Skipped: 0

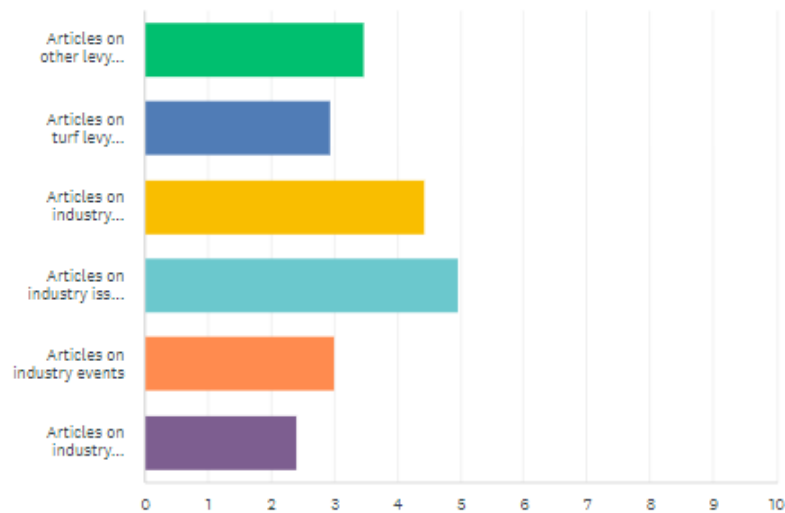


	NOT AT ALL RELEVANT	SOMEWHAT RELEVANT	MOSTLY RELEVANT	ALWAYS RELEVANT	TOTAL
▼ Turf Australia Quarterly Magazine	0.00% 0	20.00% 5	56.00% 14	24.00% 6	25
▼ Turf Australia Monthly eNews	0.00% 0	22.73% 5	54.55% 12	22.73% 5	22
▼ Turf Australia Social Media	5.26% 1	26.32% 5	42.11% 8	26.32% 5	19
▼ Turf Australia website	0.00% 0	25.00% 5	45.00% 9	30.00% 6	20



Thinking about the INDUSTRY MAGAZINE – Rank the following content types from most useful to least useful

Answered: 25 Skipped: 0



	1	2	3	4	5	6	TOTAL	SCORE
▼ Articles on other levy funded research and development projects	9.52% 2	9.52% 2	38.10% 8	19.05% 4	9.52% 2	14.29% 3	21	3.48
▼ Articles on turf levy funded marketing activities	4.76% 1	14.29% 3	14.29% 3	19.05% 4	33.33% 7	14.29% 3	21	2.95
▼ Articles on industry production and business management (e.g case studies)	26.09% 6	30.43% 7	21.74% 5	13.04% 3	0.00% 0	8.70% 2	23	4.43
▼ Articles on industry issues (e.g pests and disease, water issues)	52.17% 12	21.74% 5	8.70% 2	4.35% 1	13.04% 3	0.00% 0	23	4.96
▼ Articles on industry events	4.35% 1	13.04% 3	21.74% 5	21.74% 5	17.39% 4	21.74% 5	23	3.00
▼ Articles on industry development (e.g updates on National Market Development Project, updates from state associations)	4.17% 1	8.33% 2	4.17% 1	25.00% 6	25.00% 6	33.33% 8	24	2.42

Q4

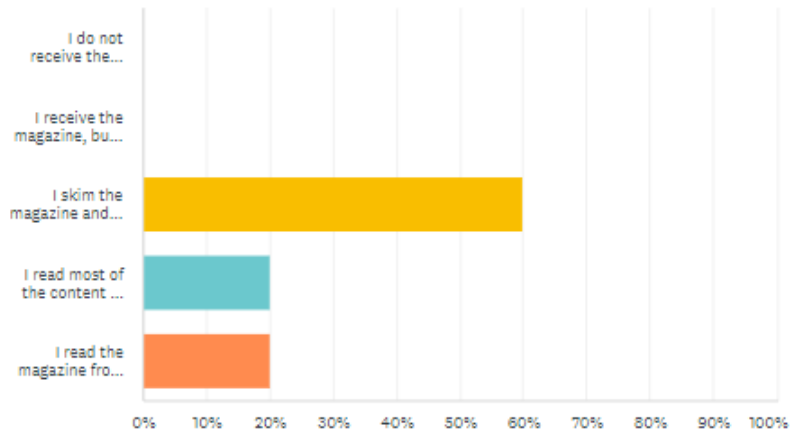


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Q4: Which of these options best describes your engagement with the INDUSTRY MAGAZINE?

Answered: 25 Skipped: 0

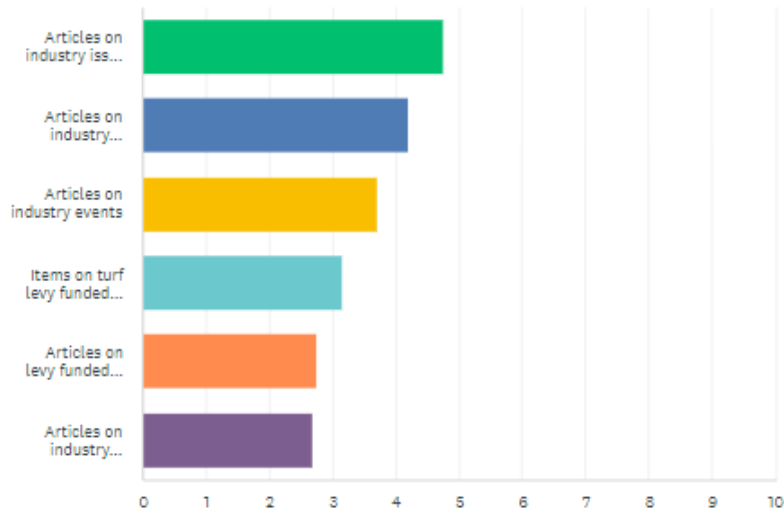


ANSWER CHOICES	RESPONSES	
I do not receive the magazine	0.00%	0
I receive the magazine, but rarely read it	0.00%	0
I skim the magazine and read the article which specifically interest me	60.00%	15
I read most of the content in the magazine	20.00%	5
I read the magazine from cover to cover	20.00%	5
TOTAL		25



With regard to the MONTHLY eNEWSLETTER - Rank the following content types from most useful to least useful

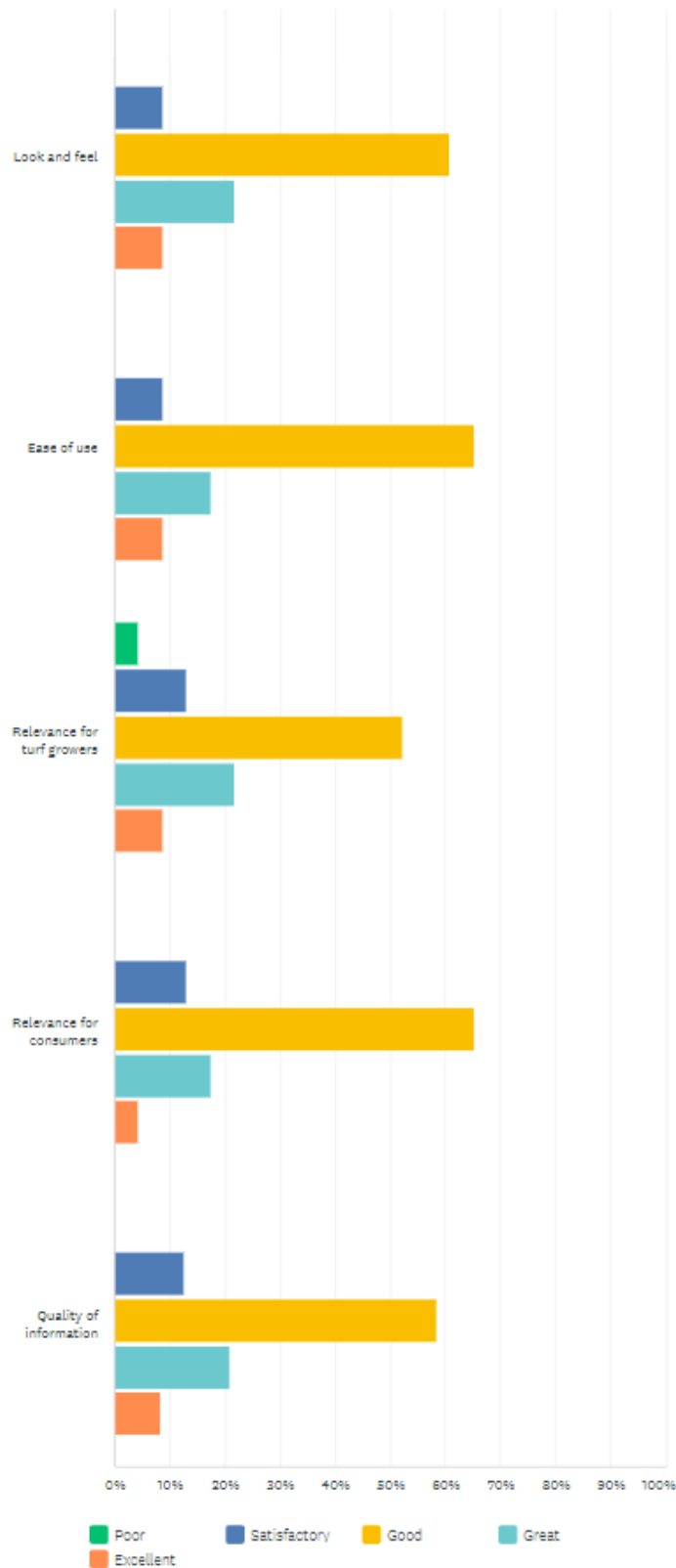
Answered: 23 Skipped: 2



	1	2	3	4	5	6	TOTAL	SCORE
▼ Articles on industry issues (e.g. pests and disease, water issues)	47.62% 10	14.29% 3	9.52% 2	23.81% 5	4.76% 1	0.00% 0	21	4.76
▼ Articles on industry production and business management (e.g. case studies)	14.29% 3	33.33% 7	28.57% 6	14.29% 3	0.00% 0	9.52% 2	21	4.19
▼ Articles on industry events	20.00% 4	20.00% 4	15.00% 3	15.00% 3	15.00% 3	15.00% 3	20	3.70
▼ Items on turf levy funded marketing activities	10.00% 2	15.00% 3	10.00% 2	25.00% 5	25.00% 5	15.00% 3	20	3.15
▼ Articles on levy funded research and development projects	0.00% 0	10.53% 2	26.32% 5	10.53% 2	31.58% 6	21.05% 4	19	2.74
▼ Articles on industry development (e.g. updates on National Market Development Project, updates from state associations)	4.55% 1	9.09% 2	18.18% 4	18.18% 4	18.18% 4	31.82% 7	22	2.68

In 2020, the Turf Australia website underwent a major overhaul. Considering the following factors, how do you rate the new website?

Answered: 24 Skipped: 1



	POOR	SATISFACTORY	GOOD	GREAT	EXCELLENT	TOTAL	WEIGHTED AVERAGE
Look and feel	0.00% 0	8.70% 2	60.87% 14	21.74% 5	8.70% 2	23	3.30
Ease of use	0.00% 0	8.70% 2	65.22% 15	17.39% 4	8.70% 2	23	3.26
Relevance for turf growers	4.35% 1	13.04% 3	52.17% 12	21.74% 5	8.70% 2	23	3.17
Relevance for consumers	0.00% 0	13.04% 3	65.22% 15	17.39% 4	4.35% 1	23	3.13
Quality of information	0.00% 0	12.50% 3	58.33% 14	20.83% 5	8.33% 2	24	3.25

Q7

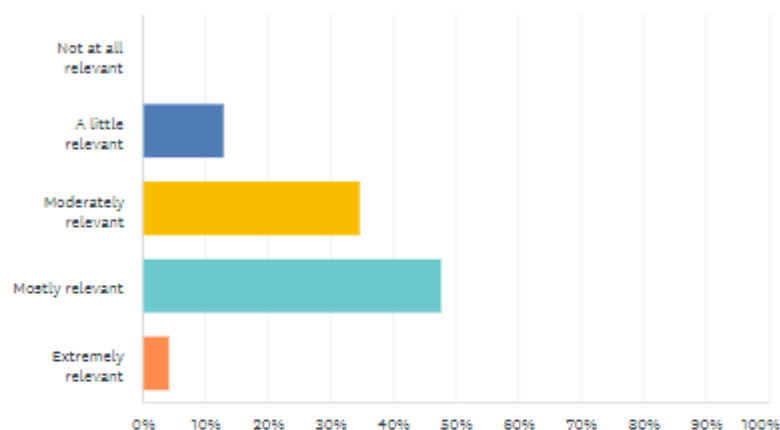


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IN 2020, a series of factsheets were released – How would you rate the usefulness of these factsheets?

Answered: 23 Skipped: 2

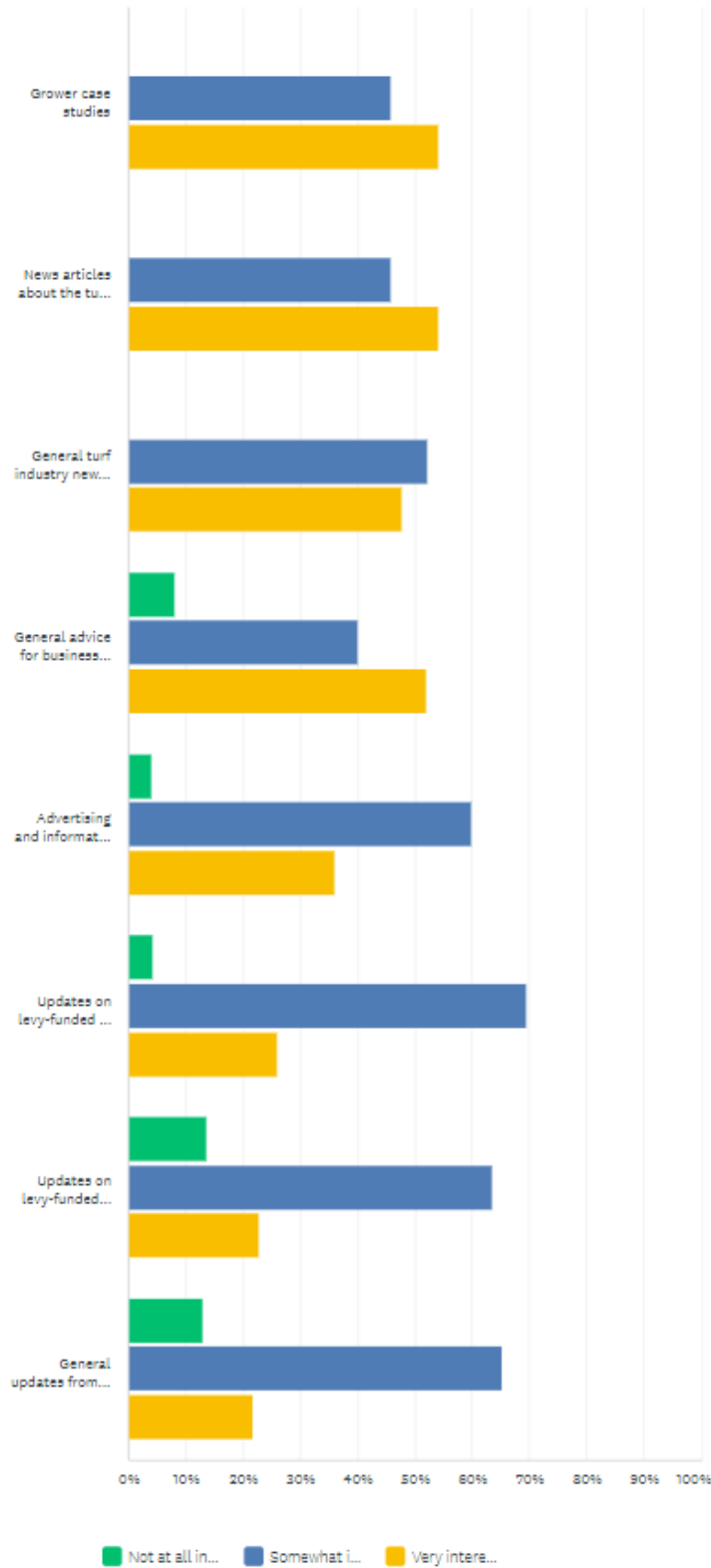


ANSWER CHOICES	RESPONSES
Not at all relevant	0.00% 0
A little relevant	13.04% 3
Moderately relevant	34.78% 8
Mostly relevant	47.83% 11
Extremely relevant	4.35% 1
TOTAL	23



OVERALL – what type of content are you most interested in seeing delivered via communications outputs

Answered: 25 Skipped: 0



	NOT AT ALL INTERESTED	SOMEWHAT INTERESTED	VERY INTERESTED	TOTAL	WEIGHTED AVERAGE
▼ Grower case studies	0.00% 0	45.83% 11	54.17% 13	24	2.64
▼ News articles about the turf industry	0.00% 0	45.83% 11	54.17% 13	24	2.64
▼ General turf industry news and events	0.00% 0	52.17% 12	47.83% 11	23	2.48
▼ General advice for business owners and managers	8.00% 2	40.00% 10	52.00% 13	25	2.44
▼ Advertising and information on new products	4.00% 1	60.00% 15	36.00% 9	25	2.32
▼ Updates on levy-funded R&D projects	4.35% 1	69.57% 16	26.09% 6	23	2.22
▼ Updates on levy-funded marketing projects	13.64% 3	63.64% 14	22.73% 5	22	2.09
▼ General updates from Hort Innovation and the wider agriculture industry	13.04% 3	65.22% 15	21.74% 5	23	2.09

Q9

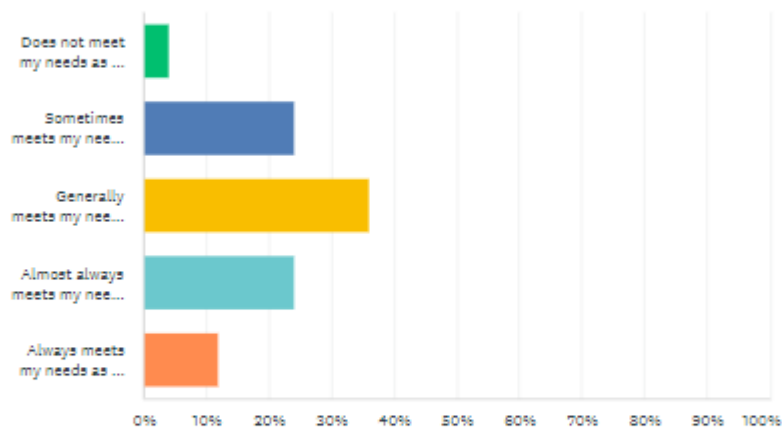


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OVERALL, how well do you feel the combination of outputs delivered by the Industry Communications Project TU16004 (magazine, eNewsletter, social media, website) meet your needs for information as a grower?

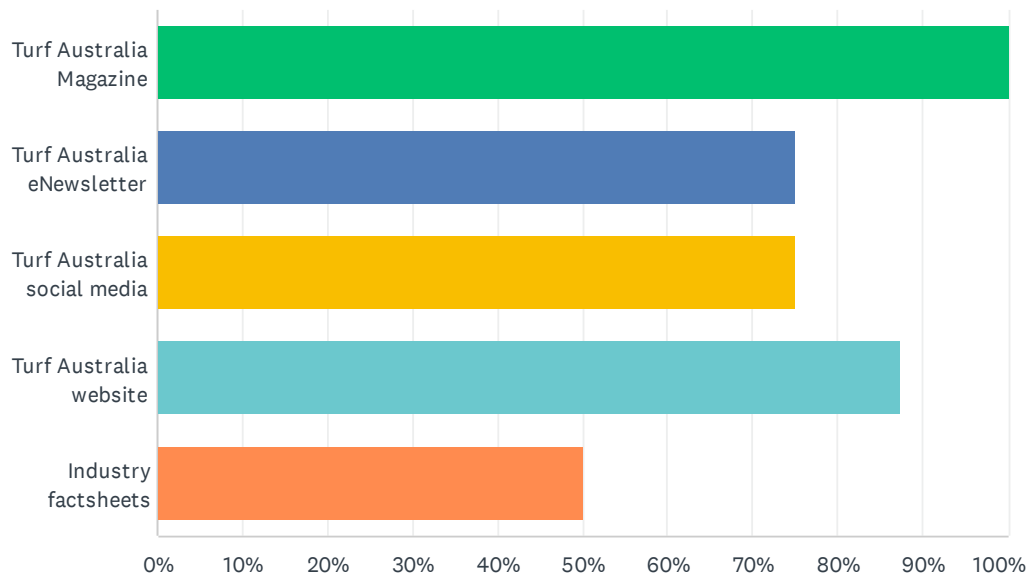
Answered: 25 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Does not meet my needs as a grower	4.00%	1
▼ Sometimes meets my needs as a grower	24.00%	6
▼ Generally meets my needs as a grower	36.00%	9
▼ Almost always meets my needs as a grower	24.00%	6
▼ Always meets my needs as a grower	12.00%	3
TOTAL		25

Q1 Do you recognise any of the following industry communications project outputs

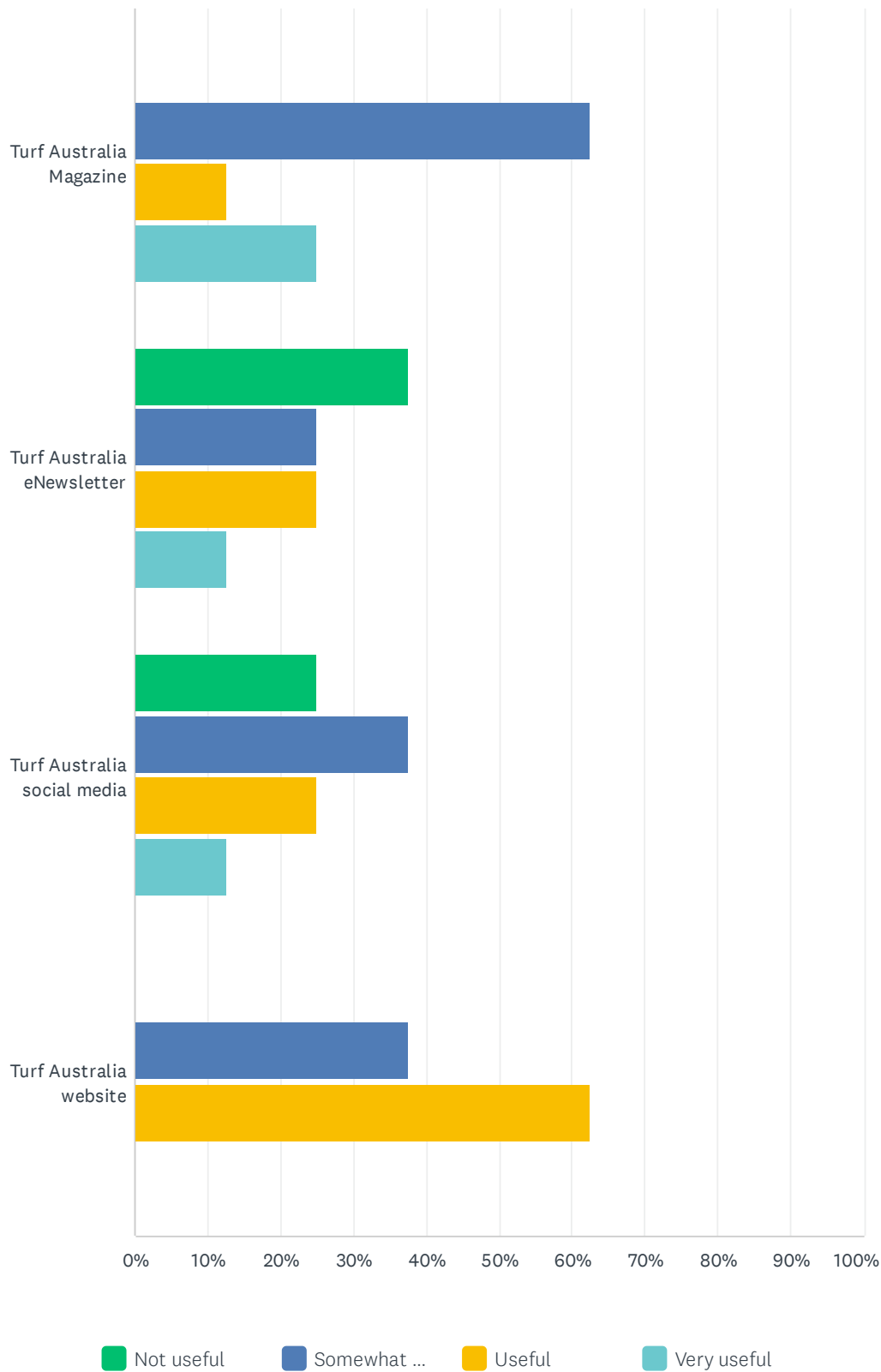
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Turf Australia Magazine	100.00%	8
Turf Australia eNewsletter	75.00%	6
Turf Australia social media	75.00%	6
Turf Australia website	87.50%	7
Industry factsheets	50.00%	4
Total Respondents: 8		

Q2 How satisfied are you that these outputs contain information that is relevant and useful to you as a grower, and your turf business?

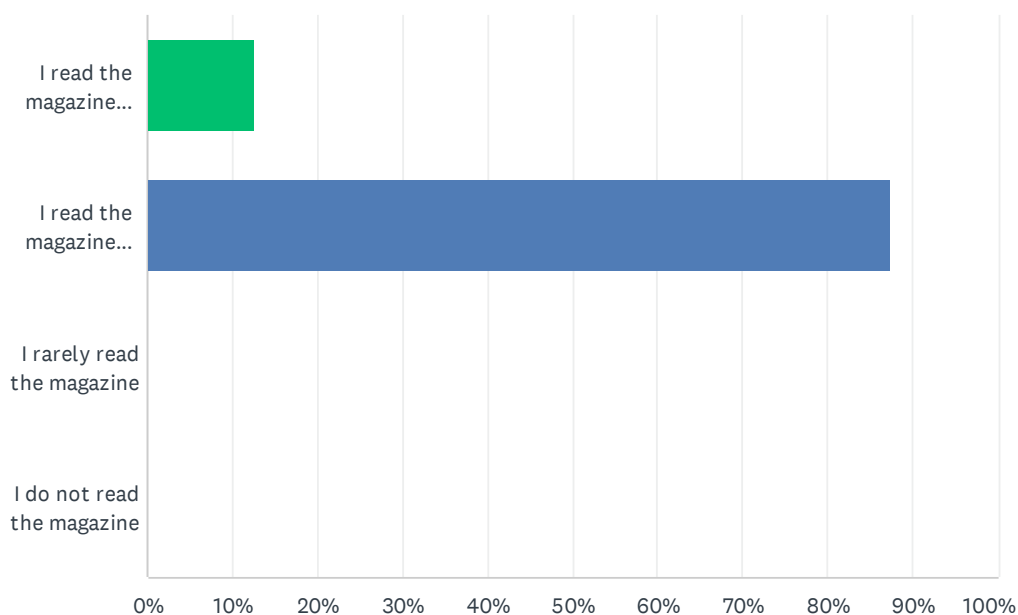
Answered: 8 Skipped: 0



	NOT USEFUL	SOMEWHAT USEFUL	USEFUL	VERY USEFUL	TOTAL	WEIGHTED AVERAGE
Turf Australia Magazine	0.00% 0	62.50% 5	12.50% 1	25.00% 2	8	2.63
Turf Australia eNewsletter	37.50% 3	25.00% 2	25.00% 2	12.50% 1	8	2.13
Turf Australia social media	25.00% 2	37.50% 3	25.00% 2	12.50% 1	8	2.25
Turf Australia website	0.00% 0	37.50% 3	62.50% 5	0.00% 0	8	2.63

Q3 Thinking about the TURF AUSTRALIA MAGAZINE, which of these best describes how you engage with the content

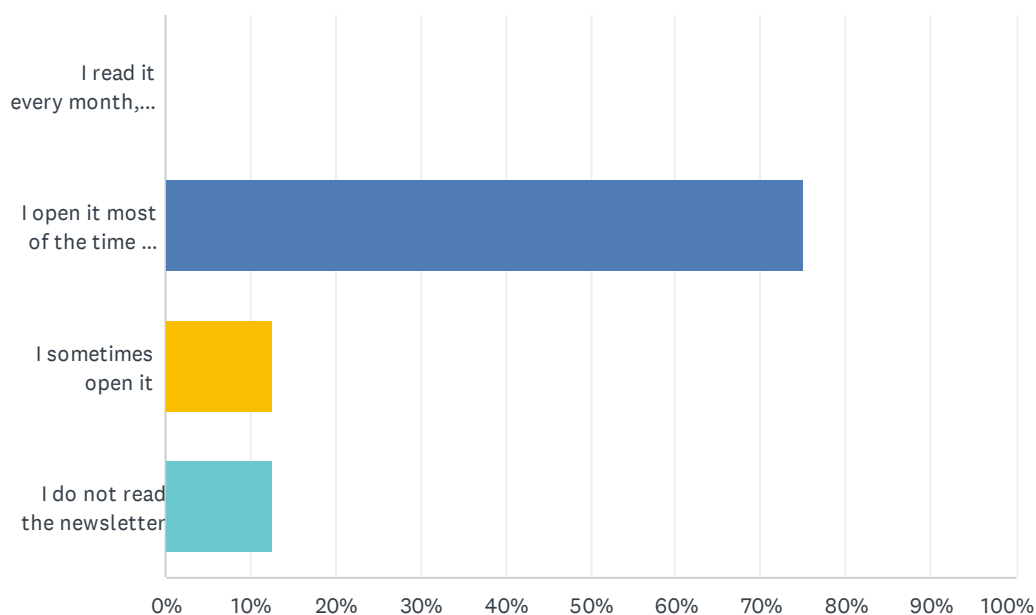
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
I read the magazine cover-to-cover	12.50%	1
I read the magazine regularly, picking out the articles that interest me	87.50%	7
I rarely read the magazine	0.00%	0
I do not read the magazine	0.00%	0
TOTAL		8

Q4 Thinking about the TURF AUSTRALIA eNEWSLETTER, which of these best describes how you engage with the content

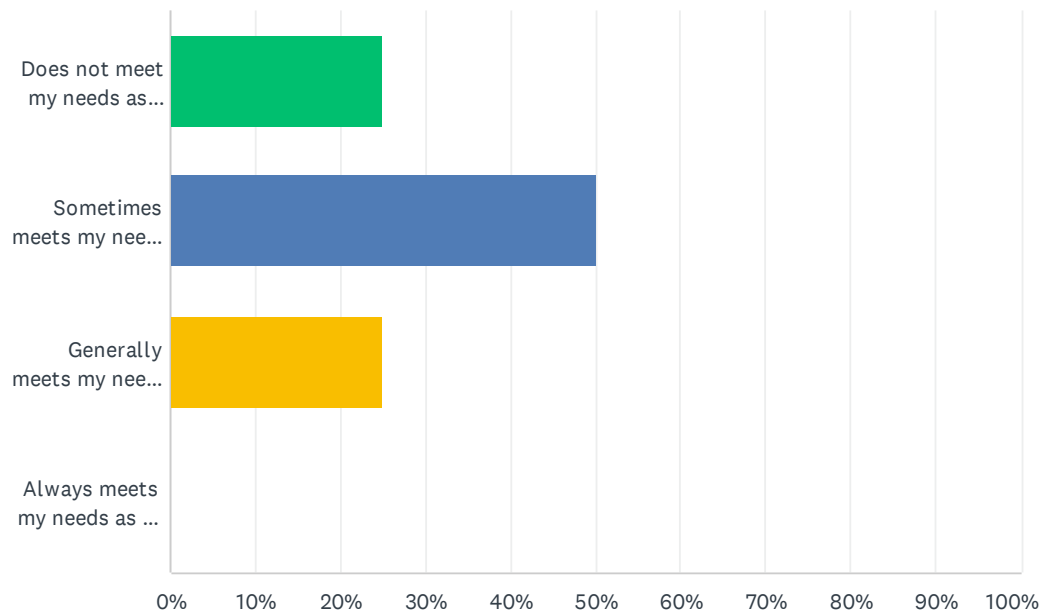
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
I read it every month, clicking on most articles	0.00%	0
I open it most of the time and read the articles that interest me	75.00%	6
I sometimes open it	12.50%	1
I do not read the newsletter	12.50%	1
TOTAL		8

Q5 Overall, how well do you feel the combination of outputs delivered by the Industry Communications Project TU16004 (magazine, eNewsletter, Facebook page, website R&D pages) meet your needs for information as a grower?

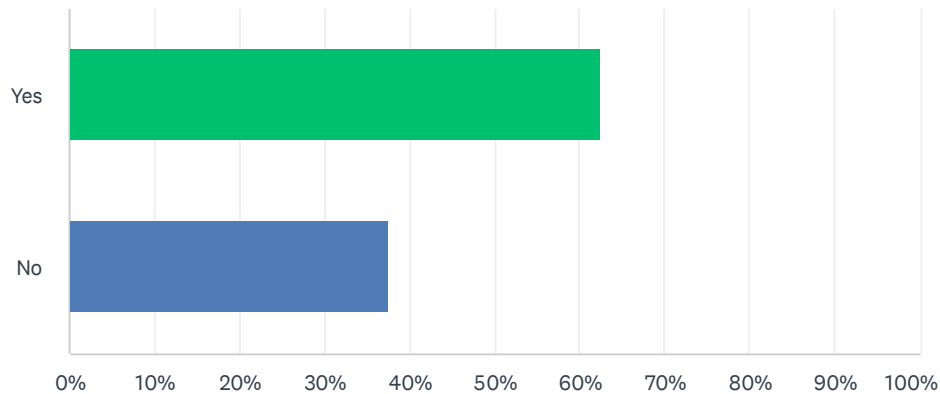
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Does not meet my needs as grower	25.00%	2
Sometimes meets my needs as a grower	50.00%	4
Generally meets my needs as a grower	25.00%	2
Always meets my needs as a grower	0.00%	0
TOTAL		8

Q6 Can you think of any occasions where you have applied information shared via the communications program in your business. Examples could include (sharing factsheets on Urban Heat Island, Synthetic vs Natural or Bushfire retardant properties; Learning about levy-funded events such as NxGen; Using the benchmarking tool or making changes to turf production

Answered: 8 Skipped: 0



ANSWER CHOICES		RESPONSES	
Yes		62.50%	5
No		37.50%	3
TOTAL			8

Q7 If you answered Yes to above, could you please provide more information?

Answered: 4 Skipped: 4

Q8 Thinking about these communications project outputs – magazine, eNewsletter, Facebook page and website R&D pages – is there any feedback on these you would like to provide to the project team? Additionally, are there any other ways in which you would prefer to receive information

Answered: 4 Skipped: 4