

Note from the CEO

Welcome to the July edition of The Vegetation Manager,



The year is flying by and we are in July already, meaning that our Vegetation Managers Forum is next month. The forum, is being held on the 18th of August, at Suncorp Stadium. With the aim of growing knowledge and networks, this forum will seek to impart knowledge on some of our industry's most pressing issues, while also providing an opportunity to network and build relationships. This year's forum features keynote speaker Dr Travis Gannon from North Carolina State University and several other renowned speakers including Dr Henk Smith, Mal Caddies and Dr Sheldon Navie. Ensure you have marked this one down in your diaries, invitations out shortly. This event will also see Technigro share some very exciting news about our future.

The 11th Annual QLD Weeds Symposium is being held from the 31 July - 3 August in Mackay with a focus on weed management - back to basics. Two of our talented team, Dr Sheldon Navie and Russell Warner, will be presenting at the symposium. Dr Navie will present a paper titled "Tropical soda apple (*Solanum viarum*): an emerging threat to agriculture and the environment in Queensland". Learn more about Dr Navie's presentation on page 3. While Russell will be presenting a paper titled "Measuring for Success - a critical review of auditing and reporting tools for Natural Resource Managers". It is often stated "you can't manage it if you can't measure it". Learn more about Russell's presentation on page 3.

This month I have been invited to speak at the annual CUGE International Turfgrass & Soil Seminar in Singapore from 21-22 July. The emphasis of this year's seminar will be enhancing tropical turfgrass and soil for better performing amenity and sports surfaces. CUGE serves as a repository for best practices in the advancement to urban environment and was jointly established by The National Parks Board and The Singapore Workforce Development Agency. This seminar will provide an interesting perspective on the turf and amenity landscape industry in Singapore and I look forward to sharing some insights from the IVMP as well as the innovations we are using here in Australia.

See you next month,

Nick Bloor

It's that time of the year

Dimension EW



Pre-emergent programs keep weeds at bay

Dimension EW applications can assist you to achieve extended weed control on your sports fields and other turf areas. July is the best time to start your pre-emergent program! For more information, read our Dimension EW fact sheet on page 5 talk to our Turf Services Manager, Dan Norton, on 0403 047 701.



Last call for pre-emergent programs for Bindii - get in now before it is too late

Bindii (*Soliva sessilis*) is a winter weed of eastern QLD and NSW. It generally raises its head in June and dies out in November. Bindii produces a spiky prickly burr, which is often troublesome to picnickers and children. This weed will start to raise its head this month, making now the perfect time to target it via a pre-emergent program. Learn more about bindii by reading our fact sheet on page 6 or talk to one of our turf specialist on 1800 678 611.

Fast Facts

- > Currently Technigro has over 6 million square metres of landscaped gardens and public open spaces under management.
- > At present we also manage approximate 25 million lineal metres of road network.
- > Through the use of innovative equipment, such as the DPS, we efficiently manage in excess of 30 million square meters of turf each year.

In the news

Speakers for the Vegetation Managers Forum announced!

The 2011 Vegetation Managers Forum (VMF) is fast approaching. The event, which is being held on Thursday, 18th August at Suncorp Stadium Brisbane, will host a group session along with Turf and Natural Areas specific sessions. Technigro is proud to announce the guest speakers and topics that will feature.

- * Research collaborations between North Carolina State University and Technigro Dr Travis Gannon, North Carolina State University (NCSU).
- * Weeds of National Significance and prioritising of weed control programs- Dr Gabrielle Vivian-Smith, Acting General Manager Invasive Plants & Animals Biosecurity Queensland & DEEDI.
- * New and emerging technologies from Syngenta - Dr Henk Smith, Syngenta.
- * Providing support, networking opportunities and education to the Turf Industry - STA - Malcolm Caddies, STA President & Suncorp Stadium Grounds Manager.

* Prioritising weed control in Natural Areas: Learnings from BCC's Wipe-Out-Weeds program - Andrew Micklejohn, Brisbane City Council (BCC).

* New and emerging weed threats in SEQ - Dr Sheldon Navie, Technigro.

* Measuring for Success - a critical review of auditing and reporting tools for Natural Resource Managers - Russell Warner, Technigro.

This event will also feature a Question & Answer session within the turf session, where you can tap into the collective knowledge of Dr Travis Gannon (NCSU) and Dr Henk Smith (Syngenta). We are currently gathering questions to ensure this session is beneficial for all attendees. If you have questions you would specifically like answered, please send them to Tara at tara.looby@technigro.com.au and we will ensure they are asked on the day.

Judging by the success of our previous VMFs and the outstanding line up of presenters, we are expecting this event to be bigger and better than ever!

The Weeds of Southern Queensland - copies now available.

A friendly reminder that the 3rd edition of the Weeds of Southern Queensland is now available. Produced by the Weeds Society of Queensland, the Weeds of Southern Queensland features a wide variety of weeds found within SE Queensland. In recent years it has been seen as an invaluable tool to all who have received a copy.

The publication provides information for identification of a variety of weeds including woody weeds; cacti and succulents; vines; groundcover and herbs; grasses and aquatics. The publication also provides readers with information on weed management, weed hygiene and control options and advice.

Technigro has been lucky enough to secure an amount of copies for distribution within the vegetation management community. If you would like to obtain a copy of this vital instrument in weed identification please contact Tara at tara.looby@technigro.com.au or on 0411157639.



Technigro proudly announces success in the Gold Coast Business Excellence Awards as well as the Telstra Business Awards.

Technigro is very proud to announce that we have been named Gold Coast Family Business of the month for June in the Gold Coast Business Excellence Awards. The primary aims of these awards are to foster pride in the business community, improve the perception of Gold Coast business and recognise leading businesses with a view to encouraging others to improve.

In receiving this prestigious award we are conscious that it not only places us amongst some of the Gold Coasts most elite businesses, but also brings with it the responsibility to uphold the highest possible standards as a representative of our industry. We look forward to the 2011 Gala Awards Presentation in which the business of the year and annual category winners will be announced.

It also gives us great pleasure to announce that we have again been named as finalists in two categories of the Telstra Business Awards in Queensland. Now in their 19th year, the Telstra Business Awards is Australia's pre-eminent business awards program. These awards celebrate the aspirations and

successes of Australia's myriad small-to-medium businesses both at a State and Territory level and at a National level.

This is the third consecutive year we have moved through to the finalist stage in the Panasonic Medium Business Award, while it is our first nomination in the Yellow Pages Social Responsibility Award. While we feel honored and proud of our achievements, we also recognise that competing against such high calibre businesses can be a humbling experience so we can only hope we will be able to share more exciting news when the award winners are finally announced on the 12th of July at a Gala Dinner in Brisbane.

BUSINESS AWARDS
IT'S HOW WE CONNECT



2011 QUEENSLAND FINALIST

In the news

Syngenta announces Barricade is here!

Earlier this year Syngenta released Barricade Turf Herbicide, a new pre-emergent herbicide for the control of poa annua, crab grass, summer grass and crowsfoot grass. Barricade is a low odour, non-staining liquid formulation containing the active ingredient Prodiamine. Barricade has been available in the USA for a number of years and is considered the standard on golf courses, sports field and landscape areas providing excellent results every time.

Barricade provides superior weed control for up to 6 months, with a flexible window of application. The application window is further enhanced with the flexibility around the need to "water in" Barricade. This can be delayed for up to 7 days after application as prodiamine has low volatility and high UV stability. Barricade is classified as a non-scheduled product and therefore re-entry periods do not apply.

Another great benefit is that it can be applied to all turf species including couch (Blue/common, hybrid), Kikuyu, Buffalo, Zoysia etc. Barricade can be tank mixed with Monument Liquid for the control of weeds that have already germinated, such as poa annua or broadleaf weeds, in Couch and Zoysia.

One of the unique properties of Barricade is that it forms a

band within the top 10 - 20mm of the soil profile and combined with an extremely low leaching potential it provides a long lasting herbicidal barrier within the soil. The low leaching potential is brought about by a unique combination of an extremely high Koc (an indication of the binding potential to soil) and very low solubility (0.013ppm). Thus meaning that it will not move off target after application and incorporation with either irrigation or rain.

Key Benefits to using Barricade

- * Long lasting residual control of up to 6 months
- * Flexible window of application - well before weeds germinate
- * An economical solution for poa annua, summer grass and crowsfoot grass - single application
- * Non scheduled with high turf safety
- * Low odour, non - staining formulation
- * Compatible with Monument Liquid



Dr Sheldon Navie to present on Tropical Apple Soda at upcoming Weed Symposium

Dr Sheldon Navie, Technigro Consulting Scientist, has been accepted to present at the 11th QLD Weeds Symposium in Mackay. Dr Navie will be presenting a paper titled "Tropical soda apple (*Solanum viarum*): an emerging threat to agriculture and the environment in Queensland".

Dr Navie is well known as one of the leading weed identification experts within Australia. He has spent several years undertaking scientific research on a number of projects involved with various aspects of weed biology and ecology, soil seed banks, biological control, seed dormancy and germination, herbicide resistance, herbicide efficacy and integrated vegetation management (IVM).

Dr Navie has previously worked at the University of Queensland as a lecturer and a supervisor for PhD and Master students. Dr Navie has published several articles in scientific journals and is the author of Technigro's highly popular Weed Watch series. Dr Navie joined the Technigro Team as a Consulting Scientist in February 2011.

Dr Navie was part of the team who first discovered Tropical soda apple in southern QLD in early 2011. A native of South America, Tropical soda apple is a serious emerging threat in Queensland due to its ability to replacing native plants and disrupts normal ecological processes. This upright shrub was first recorded in Australia in the Kempsey area in NSW in August 2010. Smaller infestations were subsequently found in the surrounding areas. Due to the rapid rate of these new detections, it is likely this plant is already present in other parts of eastern Australia.

Tropical soda apple is an aggressive species that has the potential to spread throughout NSW, QLD and possibly into many other parts of northern Australia. Tropical apple soda is unpalatable to livestock and dense infestations of this prickly plant can restrict the movement of livestock, humans and native animals. Known as the "plant from hell" in the USA, Tropical apple soda is definitely a weed we need to all watch out for! Read our Weed Watch on Tropical soda apple here for more information.

Technigro's Consulting Manager to present on NRM tools at Weed Symposium

Russell Warner, Technigro's Consulting Manager, will also be presenting a paper titled "Measuring for Success - a critical review of auditing and reporting tools for Natural Resource Managers" at the upcoming 11th Weed Symposium in Mackay.

Russell has extensive knowledge and a wealth of experience in Natural Resource Management (NRM) planning and implementation. His experience includes the development and rollout of the Townsville City Council Local Government Area Pest Management Plan and associated Council operational plans, budgets and on-ground works. Russell's technical on-ground experience and exceptional project management skills will ensure that every project is delivered on time and of the highest standard expected by Local Government clients. Russell is actively involved in several environmental

industry groups including the Weed Society of Queensland, the Environmental Institute of Australia and New Zealand, the South East Queensland Pest Advisory Forum and South East Queensland's Catchments Members Association.

It is often stated "you can't manage it if you can't measure it". Measuring outcomes of your management plan assist in defining whether objectives are being achieved and provides a basis for adaptive management and continued improvement. Russell Warner's presentation will review current tools available for measure NRM projects, such as field data forms, GIS, photo monitoring and other systems. His critical analysis of their advantages and disadvantages will assist Natural Resource Managers in selecting the best available and most suitable tools for their weed control projects in the future.

Zigzag wattle



Zigzag Wattle (*Acacia macradenia*) is a very attractive plant native to large parts of inland Queensland. It is also erroneously planted in revegetation projects in south-eastern Queensland as a “native” plant. It is now spreading from these plantings and becoming a weed of bushland in many parts of coastal Queensland. Many other wattles have already become very serious environmental weeds in other parts of Australia. Like these other species, Zigzag wattle has the potential to invade bushland areas and replace the naturally-occurring wattles. Learn more about Zigzag wattle on page 7.

Upcoming Events

> 11th Queensland Weed Symposium

Weed Management - Back to Basics
31st July - 3rd August, 2011 Mackay, QLD

> Vegetation Managers Forum

Suncorp Stadium
18th August, 2011, Brisbane, QLD

> 23rd Asian-Pacific Weed Science Conference

Weed Management in a Changing World
25th - 30th September 2011, The Sebel, Cairns, QLD

Innovation Update

Technigro takes the lead in new PGRs research program

Amenity horticulture is the beautification of urban surroundings and amenities to create aesthetically pleasing, useful and practical areas for the general public to enjoy. In the broader sense, amenities may include such facilities as sporting fields, parks, public gardens, transport corridors and utility corridors. Generally hedges, shrubs and trees are planted in these areas for their amenity value. This type of vegetation is typically managed through very regular pruning and hedge trimming activities, which are becoming increasingly costly, mainly due to increasing safety and environmental requirements. Also, the equipment used for this purpose has small inefficient engines that are rather noisy while emitting relatively large volumes of pollutants which further increase urban smog and carbon emissions.

For these reasons, local government authorities and utility companies are looking to new and innovative ways to manage this vegetation. The most obvious solution would be to reduce plantings in amenity areas and replace them with alternatives. However, this is not necessarily the most innovative approach. Increasingly plant growth regulators (PGRs) are being tested, used and accepted worldwide. These PGRs provide urban vegetation professionals with tools that enable greater flexibility in their management programs and allow more efficient use of labour and equipment. A single application of a PGR product may replace several trimmings throughout the year, it can reduce the cost of vegetation management activities by reducing labour and fuel costs. It can also make the management of amenity vegetation more sustainable (i.e. reduce carbon emissions and plant biomass sent to landfills). Also, since treated plants reallocate resources, many species may exhibit improved tolerance to disease and improved water use efficiency resulting in improved plant health.

Unfortunately, very few of these tools are currently available for use in amenity horticulture in Australia. While some PGRs

are currently registered for use, they are mainly restricted to other vegetation management activities. Through this recognition of this specific problem and a lack of tools to effectively manage it, Technigro are working with a range of organisations (i.e. local government, utility managers, university researchers and chemical companies) to tackle this issue and come up with better solutions.

Following on from the success of the IVMP Project, Technigro and partners such as BCC, GCCC, Bayer, Syngenta will establish a project to test the effectiveness of various PGRs in several explicit situations, with the objective of determining which PGRs are most effective in which situations within the Australian environment. These experiments will be designed to provide data that will be appropriate for the registration of off-label permits, so that the PGRs can be made more available to vegetation managers in Australia. In order to validate this approach, the relative cost of a management regime with and without PGR treatments will be calculated to determine the economic benefits that may be expected by end users.

This approach of partnering with product suppliers, asset owners and asset managers ensures Technigro are leading the way in providing real solutions to problems being experienced by our industry. For further information regarding this exciting project please contact Dr Sheldon Navie on his mobile 0425 431 793 or via email sheldon.navie@technigro.com.au



A section of hedge treated with a PGR



An untreated section of the same hedge

PRE-EMERGENT WEED CONTROL



Many common weed species will outperform turf grass in unfavourable conditions, resulting in major infestations during long periods of heavy usage. Dimension EW has proved itself as a premium product for broad-spectrum pre-emergent weed control due to the range of weeds controlled, the length of control, and the flexibility of application. For this reason, Technigro recommends the use of Dimension EW for extended residual control on sports fields and high profile turf areas.

Benefits of Dimension EW

- > Broad spectrum, season long control of the toughest grass weeds
- > Low mobility in soil making it ideal in a number of turf situations
- > Non staining, solvent free formula that is gentle on turf
- > Will not damage or inhibit turf recovery of desired species
- > Water based formula which reduces odour and improves tank mix flexibility

Dimension EW forms the backbone of a strategic weed management program, due in part for its ability to work in synergy with many post emergent products and that it binds readily to the soil to form an effective barrier against the germination of the most troublesome grass weed species.

Dimension EW provides effective post emergent control for a wide range of turf weeds, including Crowsfoot, Wintergrass and Paspalum. The product also offers early post emergent control of Summergrass after germination, lengthening the period of residual control.

Dimension EW is a UV stable product. As a result, it does not need to be watered in immediately. However, the product needs to contact the soil surface to form the pre-emergent barrier and start working.

Application

Dimension EW has a recommended maximum application of 4L of product per annum. With this in mind, Technigro offers a tailored program that includes the use of Pendimethalin coated fertiliser to provide a full twelve months of pre-emergent protection.

Your Provider of Vegetation Management Solutions

Post: PO Box 2038, Burleigh BC, QLD. 4220

T: 1800 678 611 | www.technigro.com.au



for **smarter** solutions

BINDII

Soliva sessilis



Photographs are courtesy of Dr Sheldon Navie

Description & life cycle

Bindii (*Soliva sessilis*) is chiefly a winter weed of eastern QLD and NSW. It generally first raises its head in June and dies out in November; when the weather becomes warmer.

Bindii is a small rosette-forming annual with carrot like leaves.

Bindii hugs closely to the ground and primarily is a weed of lawns, playing fields and parks, where the burrs are familiar to many bare-footed children

Like all plants, Bindii produce seeds from which new plants grow. Bindii uses a spiky prickly burr to attach their seed.

Nature has designed that the burrs stick to the fur of animals so that the Bindii spreads from place to place.

Bindii is a winter weed. The Bindii burrs are soft and fluffy when they first form in August/September. As the temperatures rise, the Bindii begins to die and the burrs turn into hard prickles.

Key features

- > It grows very low to the ground, making it impossible to be mown out.
- > It's favourite haunts include worn areas around playgrounds, picnic spots, under trees and other shady areas.
- > When the burrs can be seen (or felt!), it is too late to spray.

Control

1. A few plants can be lifted with a fork or removed with a steel garden rake, but most infestations require treatment with selected turf herbicides to achieve effective control
2. If Bindii is identified early and treatment can occur before formation of the burrs, Spearhead®, which contains a mixture of Clopyralid, Diflufenican and MCPA, is the preferred herbicide as it contains some pre-emergent qualities. It is also useful for treating Clover and other broadleaf weeds.
3. If treated late in the season, Millennium®, which contains 2,4-D, Clopyralid & Dicamba, is the preferred herbicide as it provides quicker control. This herbicide also controls Clover and other broadleaf weeds which emerge over the winter period.
4. Depending on the season and infestation, Bindii can re-emerge weeks after an initial treatment. For this reason Technigro recommends a proactive approach be developed in late Autumn to ensure your program is planned well in advance of treatment being required. Experience has proven that customers who have targeted Bindii with Spearhead at the right time of the year have fewer complaints and reduce the need to undertake follow up treatments later in the same season.

Your Provider of Vegetation Management Solutions

Post: PO Box 2038, Burleigh BC, QLD. 4220

T: 1800 678 611 | www.technigro.com.au



for **smarter** solutions



1. Habit in flower. 2. Zig-zagging stems and flower buds. 3. Close-up of globular flower clusters. 4. Prominent central vein and raised margins.



Zigzag wattle (*Acacia macradenia*)

Introduced

Native

Not Declared

Zigzag wattle is a very attractive plant native to large parts of inland Queensland. Because of its spectacular floral display in winter, this species has been widely cultivated in other parts of Australia as a garden ornamental. It is also erroneously planted in revegetation projects in south-eastern Queensland as a “native” plant. It is now spreading from these plantings and becoming a weed of bushland in many parts of coastal Queensland.

Distribution

Zig-zag wattle is native to large parts of inland Queensland, from the north-western parts of the Darling Downs district to north-east of Hughenden. However, it is mainly found from the Clermont area in central Queensland south to near Surat and Chinchilla.

It was first recorded becoming naturalised in the understorey of a dry eucalypt forest at Mount Crosby in 1978. Further records appeared near Cooktown in northern Queensland, from the Maryborough area, and from the greater Brisbane area in 2003 and 2004. It has since been reported from other parts of south-eastern Queensland, including the Gold Coast, Sunshine Coast and Ipswich areas.

Description

A shrub or small spreading tree that grows 3-6 m tall. The younger branchlets are generally drooping in nature with a distinctive zig-zagging appearance. Its leaves are actually modified leaf stalks, called phyllodes, which take on the function of a regular leaf. These hairless dark green phyllodes (8-25 cm long and 8-25 mm wide) are tapered at both ends and vary from relatively straight to noticeably curved. They have a single prominent central vein running lengthwise and their margins are also raised and prominent. Young leaves and stems are often reddish in colour.

Quick Facts

- > A large shrub with zig-zagging younger stems.
- > Leathery 'leaves' that have a prominent central vein and raised margins.
- > Masses of small bright yellow globular flower clusters in winter.
- > Long and slender pods containing several hard black seeds.

Habitat

In its natural habitat, Zig-zag wattle grows on stony or sandy soils in the understorey of open woodlands, often near creeks or on hillsides. In eastern Queensland it has become naturalised along roadsides, in suburban parks and bushland, and in open eucalypt woodlands.



■ Native distribution
■ Introduced distribution



1. Mature fruit. 2. Infestation in bushland near J C Slaughter Falls at Mount Coot-tha.

Description (cont'd...)

The bright yellow flowers are arranged in globular clusters about 10 mm across. These flowers have relatively inconspicuous petals and sepals and numerous conspicuous stamens that give them a fluffy appearance. The globular flower clusters are borne on short stalks 3-6 mm long, and 8-25 of them are alternately arranged along short flowering branches (2-8 cm long). Flowering occurs during a short period in winter and early spring (i.e. from late June to September) and is usually very prolific and spectacular. The fruit is a very elongated pod (up to 8 cm long and 5 mm wide) that is slightly to moderately constricted between each of the seeds. These hairless pods are initially green in colour with a leathery appearance, but turn dark brown as they mature in late spring. The blackish seeds are oblong in shape (about 4 mm long and 2.5 mm wide) and have a small fleshy aril attached to one end.

Reproduction and Dispersal

Zig-zag wattle produces numerous hard seeds, that are probably long-lived like those of other acacias. Its seeds are spread short distances by animals (e.g. birds and ants) and they may also be dispersed in dumped garden waste and contaminated soil. However, this species is most commonly spread as a result of its use in re-vegetation and amenity plantings.

Why is it an Emerging Threat?

This species is erroneously planted along highways, in amenity areas, and in re-vegetation plantings in eastern Queensland as a "native" plant. However, it is not native to this part of the state and has spread from such plantings, particularly in the Greater Brisbane and Gold Coast areas. For example, it has recently been observed growing in parks and conservation reserves in parts of Ipswich and western Brisbane (e.g. at Redbank, Mount Crosby, St. Lucia and Mount Coot-tha). Many other wattles have already become very serious environmental weeds in other parts of Australia (e.g. Cootamundra wattle). Like these other species, Zigzag wattle has the potential to invade bushland areas and replace the naturally-occurring wattles.

Control Methods

The control of this species is not currently required by law, however it is an emerging environmental weed it should be removed from sensitive bushland and conservation areas outside its native range.

Small plants can be pulled out by hand, while larger saplings and trees may need to be treated with herbicides using either the cut-stump or basal bark methods. No chemicals are currently registered for its control in Australia, but in Queensland control environmental weeds such as Zig-zag wattle is allowed via the APVMA off-label permit number PER 11463 (<http://permits.apvma.gov.au/PER11463.PDF>). Unless otherwise stated in this permit, the use of the product must be in accordance with instructions on its label. Within other state boundaries, it is recommended that all managers consult any relevant permits or government legislation applicable to their region.

Look A-likes

The zig-zagging stems of this species are very distinctive, hence it is rarely confused with the other wattles (i.e. *Acacia* spp.) that are present in Queensland.

The control methods referred to in Weed Watch™ should be used in accordance with the restrictions (federal and state legislation and local government laws) directly or indirectly related to each control method. These restrictions may prevent the utilisation of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, Technigro does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.

This information has been developed with the assistance of Dr Sheldon Navie. Photographs are also courtesy of Dr Sheldon Navie © Technigro Australia Pty Ltd 2011

Your Provider of Vegetation Management Solutions

Post: PO Box 2020, Nerang, QLD, 4211

T: 1800 678 611 www.technigro.com.au

 **technigro**
for smarter solutions