

**BSES Limited**



**REPORT FOR TERRAIN NATURAL RESOURCE MANAGEMENT  
DELIVERY OF SIX EASY STEPS AND INTEGRATED WEED MANAGEMENT  
WORKSHOPS THROUGHOUT THE TERRAIN REGION**

**by**

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## 1.0 BACKGROUND

As part of the Reef Rescue project, BSES Limited has two contracts with Terrain Natural Resource Management involving the delivery of specific extension services to the sugar cane industry in the Terrain region sugarcane districts from the Herbert to Mossman. These extension services sit within the BSES strategic plan (2008-13) and are designed to support improvements in water quality outcomes that also potentially improve long-term sustainability of the industry.

The two contracts are for Extension Support for growers to access on-farm funding (BSES code 2420420) and delivery of industry training (BSES codes 2425420 and 2430420 run as one project).

This report is for 2425420 and 2430420 and involves the following key areas of activity:

1. Provide technical support and membership to the Terrain sugar industry working group
2. Provide specific extension services to assist Herbert and Tully growers in accessing Federal Government on-farm matched funding for works that improve both productivity and water quality outcome
3. Provide an increased volume of industry support in areas of nutrient management and weed management programmes
4. Provide technical support to the ABCD land-use practice guidelines and industry surveys for reporting to the Federal Government.

This report is for 2425420 and 2430420.

Within these key areas, BSES staff operate to milestones and guidelines. For the Ingham-Mossman region, Terrain NRM have provided extra funding for these workshops to be delivered at a higher rate than would normally be possible. The funding provided allows BSES to dedicate three extension staff- David Calcino (6ES), Ash Benson and Michael Porta (IWM) - to running these two programs across all Terrain districts, usually between February and May. The Terrain funding is also used to employ former BSES agronomist Alan Hurney to help deliver the 6ES workshops.

## 2.0 OBJECTIVES

There are distinct objectives within the Reef Rescue programs:

- Provide technical support and membership to the Terrain sugar industry working group
  - Roll out the “Six Easy Steps” (6ES) nutrient and “Integrated Weed Management (IWM) workshops in each district of the Terrain region. Part of these workshops involves the preparation of nutrient and weed management plans for each grower attending. These are finalised by the local extension officer after the workshop as a follow up to the program. At the end of each workshop growers are surveyed to monitor acceptance and satisfaction with the information provided and the way the workshops are run.
- 3 Contribute to continual review and update of ABCD frameworks and application
    - Active participation in relevant ABCD review activities within the northern sugar industry working group.

### **3.0 ACHIEVEMENTS**

#### **3.1 Participation in regional cane industry working groups**

Greg Shannon and David Calcino are members of the Terrain NRM cane industry working group and attended all meetings during the set time frame 2010-11.

#### **3.2 Six Easy Steps (6ES) Workshops**

The previous success of these workshops has continued with a high grower demand for 2010-2011.

This course outlines the principles of soil sampling, nutrient uptake and potential loss pathways as well as how to read a soil test and determine nutrient requirements. It also emphasises why soil tests are important and the sixth step is to review the whole processes and modify for the growers own situation. With the implementation of State Government Reef Regulations from 1 January 2010 the demand for the workshop has increased as growers strive to better understand how nutrient requirements are determined, especially nitrogen and phosphorous.

For both workshops, the January-May period is usually most effective, with some courses held towards the end of the season. However, the difficult wets season and cyclone Yasi meant the February-March time period was a very difficult one in which to run any workshops. Despite the difficulties, the workshops did take place and were very effective.

Eleven (11) courses were held, with 6 in the Herbert, representing 4,946 ha or 9% of the Herbert area under cane.

- 102 growers attended.
- 13 industry staff attended.
- Six workshops were held in the Herbert due to the region having the largest number of growers (590).
- A total of 11 workshops were held across the Terrain region , covering 14 413 hectares or 10.9% of the Terrain region
- This brings the total area of the entire Terrain region covered by this workshop since the contract commencement 1 January 2009 to 57.6%., with 570 participants, or 190 on average per year.

At the conclusion of each workshop a survey is undertaken to gauge participant's response to the effectiveness of the workshop for their own farming operations. For the 2010-11 workshops, the effectiveness was rated at 9.44 out of 10.

For full details of 6ES training see Appendix 2.

#### **3.3 Integrated Weed Management (IWM) workshops**

The Integrated Weed Management courses have been very popular since inception in 2008. This course packages up the bulk of information BSES has its disposal on integrated weed management options, chemical use and modes of actions, and application types and efficiency. It was originally designed to fill a need for greater understanding of chemical

mode of action, and application technology which is advancing all the time. In addition, it follows on nicely from Chemcert training

Nine (9) workshops were held involving 95 participants. Most were held after Cyclone Yasi, with three before Christmas. A total of 345 growers and 57 other participants have done this course, for an average of 172 participants per year, since 2009-10.

The incredibly difficult end to season 2010 and start to 2011 reduced the number of growers able to do this workshop, with several courses having to be postponed due to incredibly wet conditions.

At the end of each workshop a participant survey is conducted rate the effectiveness of the course for their own farming operations. For 2010-11 workshops, the effectiveness was rated at 8.9 out of 10.

For full details of IWM training see Appendix 3

#### **4.0 CONCLUSIONS**

The weather conditions, including Cyclone Yasi severely impacted on workshops planned to be held during the peak training season, February-April. Despite this, the BSES trainers completed 9 IWM and 11 6ES courses between July 2010-2011. In both cases, the yearly average of minimum growers to do the workshops has been exceeded.


## Appendix 1

**REEF RESCUE WATER QUALITY INCENTIVE SCHEME  
PARTNERSHIP/EXTENSION CONTRACT  
PROGRESS REPORT due 31 December 2010**

**Six Easy Steps and IWM Courses for Terrain**

**Extension officers: David Calcino, Ash Benson, Michael Porta, Debbie Telford\*, Bill Dalton**

**Contributors – David Calcino, Ash Benson, Greg Shannon**

<b>Contractor:</b> 		<b>Date progress report submitted:</b> July 2011	
<b>Project ID:</b> RR02 Sugarcane Partnerships		<b>Progress report approved (signature and date):</b> (Terrain use only)	
<b>Contract Number:</b> CO-0044			
<b>Project description:</b>	<p>This project involves the fast tracking of delivery of two BSES products, the Six Easy Steps nutrition course and the Integrated Weed Management course, both which are completed as a part of the on farm project funding.</p> <p>Since July 2009 the demand for both courses has been very high.</p> <p>i) For Six Easy Steps BSES have two dedicated trainers (one full time extension officer and one contract) who run courses from Mossman south to the Herbert.</p> <p>Workshops have been conducted in the Terrain region up to July 2011. A number of nutrient management plans have also been completed. Surveys conducted after each grower workshop assessed participants' attitudes to the workshop and sought to identify areas for improvement. Participants rated the usefulness of the workshop very highly and no areas were identified for significant improvement.</p> <p>ii) For the Weed Management course two full time BSES extension staff runs these course from Mossman to the Herbert with local staff assisting as required. The two staff is Ash Benson (Senior Extension Officer Herbert) and Michael Porta (Extension Officer Babinda).</p>		
<b>Activity</b>	<b>Deliverable(s)/ outputs</b>	<b>Project comment</b> (please indicate numbers achieved and a brief description of how the activity was achieved)	<b>Completion date</b> (if delayed, please explain why and indicate expected completion date)
<b>Delivery of Integrated Weed Management Courses</b>	<p>Work with local Canegrowers Offices to publicise IWM courses, identify participants and organise sufficient courses to meet demand as shown by draft delivery plan.</p> <p>Notice of IWM courses sent to all successful applicants with pesticide-related Water</p>	<p><b>(CB3.3 Collaborative arrangements negotiated with Canegrowers organisation to deliver weed management courses)</b></p> <ul style="list-style-type: none"> <li>• <b>Mossman</b> – BSES and MAS have organized</li> <li>• <b>Mulgrave</b> – BSES and CANEGROWERS have promoted, organized</li> <li>• <b>Tablelands</b>-BSES and CANEGROWERS</li> </ul>	<p>By 31 January 2011</p>

	Quality grants, and names to be provided by Terrain.	<ul style="list-style-type: none"> <li>• <b>Innisfail</b> – BSES and CANEGROWERS</li> <li>• <b>Babinda</b> – BSES and CANEGROWERS</li> <li>• <b>Tully</b> – BSES and TCPSL and CANEGROWERS</li> <li>• <b>Herbert</b> – BSES and HCPSL and CANEGROWERS</li> </ul>	
	Information provided to Extension Officers across the Terrain region to enable follow up farm visits.	<p><b>(CB5.1 Support provided to (no of) extension officers to enable farm visits)</b></p> <ul style="list-style-type: none"> <li>• Ash Benson has generated a Weed management plan template for use by other extension officers to modify locally as required.</li> <li>• Bill Dalton has modified this for the Innisfail/Babinda region</li> <li>• Bill Dalton began undertaking IWM plans for the Mossman region</li> <li>• Jordan Villaruz provides information packs including the Integrated Weed management plan to Tully growers</li> </ul>	Quarterly as available
<b>Delivery of Six Easy Steps Nutrient Management Courses</b>	<p>Work with local Canegrowers Offices to publicise courses, identify participants and organise sufficient courses to meet demand as shown by draft delivery plan.</p> <p>Notice of proposed 6ES Courses sent to all successful applicants with nutrient-related Water Quality grants, with names to be provided by Terrain.</p>	<p><b>(CB3.3 Collaborative arrangements negotiated with Canegrowers organisation to deliver Six Easy Steps courses)</b></p> <ul style="list-style-type: none"> <li>• <b>Mossman</b> – BSES and MAS have organized</li> <li>• <b>Mulgrave</b> – BSES and CANEGROWERS have promoted, organized</li> <li>• <b>Tablelands</b>-BSES and CANEGROWERS</li> <li>• <b>Innisfail</b> – BSES and CANEGROWERS</li> <li>• <b>Babinda</b> – BSES and CANEGROWERS</li> <li>• <b>Tully</b> – BSES and TCPSL and CANEGROWERS</li> <li>• <b>Herbert</b> – BSES and HCPSL and CANEGROWERS</li> </ul>	By 31 January 2011
	Information provided to Extension Officers across the Terrain region to enable follow up farm visits.	<p><b>(CB5.1 Support provided to (no of) extension officers to enable farm visits)</b></p> <p>Development of NMP's is ongoing as growers commence planting cane. Not possible at this stage to quantify changes in nutrient management but growers adhere to State Government legislated rates for N &amp; P i.e. . . .</p> <p><b>For workshop data see Appendix 2.</b></p>	Quarterly as available
	<p>Evaluation data collected by mill area on:</p> <ul style="list-style-type: none"> <li>• Area managed or influenced by attendees at 6ES</li> <li>• Number and names of</li> </ul>	<p><b>(RA1.3 Evaluation data on 6ES provided to Terrain's Reef Rescue monitoring program)</b></p> <p><b>See attached spread sheet Appendix 3.</b></p>	Quarterly



	attendees who are farmers <ul style="list-style-type: none"> <li>• Number and affiliation of attendees who are support staff.</li> </ul>		
<b>Reporting</b>	Provide progress reports to Terrain (using template provided by Terrain).	<b>RA2.3 No of reports completed</b>	By 31 May 2011

## Appendix 2 - IWM courses since 2009

## Attendance at IWM courses since 2009

Region	Total mill area	Area covered in workshops	% of mill area covered	Number of growers	Number of other attendees	Workshops held
Mossman	7330	5592	76.3	34	4	3
Tablelands	7248	4119	56.8	21	5	2
Mulgrave	13096	5330	40.7	40	9	4
Babinda	8111	4694	57.9	29	4	4
Innisfail	16045	6296	39.2	52	8	5
Tully	22711	10229	42.1	48	8	5
Herbert	55059	23852	43.3	121	19	10
<b>TOTAL</b>	<b>129600</b>	<b>60112</b>	<b>46.4</b>	<b>345</b>	<b>57</b>	<b>33</b>

## Attendance at IWM courses 2010-11

Date	District	Growers	Others	Area ( ha )	% of district
17-11-10	Innisfail	7	0	663	4.1
13-12-10	Herbert	13	2	1770	3.2
20-01-11	Tablelands	12	2	1529	21.1
08-03-11	Mulgrave	12	1	1063	8.1
09-03-11	Tully	7	2	917	4.0
10-03-11	Babinda	7	1	803	9.9
12-04-11	Herbert	16	1	2670	4.8
31-05-11	Tully	6	1	1089	4.8
01-06-11	Herbert	5	0	1575	2.9
		<b>85</b>	<b>10</b>	<b>12 079</b>	<b>9.3</b>

## IWM Course participants 2010-11

Workshop	Growers	Others
17-11-10 Innisfail	Victor Guarrera Peter Said Dennis Gattera Fred Lizzio Jassi Singh Stephen Cole Joe Sendra	
13-12-10 Herbert	Geoff Low Alan Wallis Steve Laverini Joe Sorbello Bruno Casale Lawrence Raiteri Richard Gherardi John Mahoney Angelo Trovato Brian Clerk Jeff Bow Joe Grotelli Norm Reid	Rod Fletcher (BSES) Peter Reid

20-01-11 Tablelands	Dennis Salvetti Ali Adil Vince Cabassi Aurillo Rocca Gino Raso Mark Reppel Ken McKenzie Doug Rankine Claude Santucci Tom Farley Graham Cuzzubbo Giovanni Ravanello	
08-03-11 Mulgrave	Gary Morellini Robert Poglio Rob Marino Ross J Marino Ross P Marino Bill Thomas Andrew Thomas Savino Benedetti Donald Leighton Michael Giacomi Ross Thomason Ross Mangano	Amabile Destro (CANEGROWERS)
09-03-11 Tully	Fred Lizzio (Tul) Anthony Nucifora(Tul) Alf Patane Charlie Silvestro Gerard Lizzio Mario Quagliata Stuart Gilbert	Brendan Dyer (BSES) Claire Bailey (TCP SL)
10-03-11 Babinda	Walter Saro(Bab) R Muzil D Baldi F Gatti S Destro S Pappalardo F Azzopardi	S Hennich
12-04-11 Herbert GROWERS	Delmo Ganza Steve Fortini Lex Exelby Steve Guazzo Joe Crisafulli Ross Blanco Sam(& Paul) Spina William Tento Don Lino Remo Pietrobon Nev Williams Tom Gilbert David Celotto Lino Tomba Santo (S,M,C) Lamari Vince Balanzategui	Mick Fortini

31-05-11 Tully	John O'Kane Brian Machan Gurinder S Mavi BK (Duckie) Johnson Joe Formosa Len Collins	Trevor O'Kane
1-06-11 Herbert	Terry Carr Ed Hobbs Sam Vecchio Lloyd Biasi Robert Silvini	

### Appendix 3 - 6ES courses since 2007

#### Attendance at 6ES courses since 2007

Region	Total mill area	Area covered in workshops	% of mill area covered	Number of growers	Number of other attendees	Workshops held
Mossman	7330	5032	68.7	37	2	3
Tablelands	7248	3339	46.1	16	0	2
Mulgrave	13096	9902	75.6	82	10	3
Innisfail-Babinda	8111	16699	69.1	141	21	7
Tully	22711	17969	79.1	91	16	5
Herbert	55059	21 758	39.5	136	18	11
<b>TOTAL*</b>	<b>129600</b>	<b>74 699</b>	<b>57.6</b>	<b>503</b>	<b>67</b>	<b>31</b>

\*A further 11 074 ha of the Herbert had completed the workshop prior to the commencement of this project (between 2005-07)

#### Attendance at 6ES courses 2010-11

Date	District	Growers	Others	Area (ha)	% of district
31-08-10	Herbert	10	1	1645	3.0
05-10-10	Herbert	13	1	1990	3.6
06-10-10	Herbert	9	0	969	1.8
12-10-10	Herbert	6	6	342	0.6
11-04-11	Innisfail	5	0	449	1.9
15-04-11	Babinda	2	2	90	0.4
18-04-11	Mulgrave	8	0	585	4.5
19-04-11	Tully/Babinda/Inn	17	1	2307	11.0
28-04-11	Herbert	12	1	2308	4.2
26-05-11	Tully	7	0	2111	9.3
27-05-11	Herbert	13	1	1347	2.5
Total		102	13	14143	10.9

#### 6ES Course Participants 2010-11

Workshop	Growers	Others
31-08-10 Herbert	George Murray Paul Dametto Carmelito Lenzo Ray Venables Maria Carmelitto Olga De Campo Irma Huston Kevin Barnes John Morley Gordon Irlam	Felix Roveglia
05-10-10 Herbert	John Marsh Phil Strid Des Mizzi Gaden DiBella Ricky Quabba Joe Minato Joe Crisafulli	Ron Kerkwyk ( HCPSL )

	Nev Williams Steve Fortini Michael Fortini Glen Cristaudo Angelo Trovato Len Chiesa	
6-10-10 Herbert	Peter Garbutt Bruno Fichera Aldo Pietrobon Rodney Fascetti Gilbert Fascetti Darrin Harragon Geoff Low ( Alan Wallis John Russo Lynda Amisano	
12-10-10 Herbert	Robert Tento Sam Spina Lucione Mammarella Stephen Minato Raylee Minato Digger Vigorelli	Fiona Barron (Terrain NRM) Peter Uechtriz (Terrain NRM) Daryl Killin (Terrain NRM) Evizel Seymour (Terrain NRM) Mike Sefton (HCPSL) Tony McClintock (HCPSL)
11-04-11 Innisfail	Stephen Cole Emidio Zaini Joseph Cini Peter Angelini Joseph Sendra	
15-04-11 Babinda	Dan Guglielmana Daniel Messina	Phil Laycock (GBRMPA) Jamie Thompson (Ravensdown)
18-04-11 Mulgrave	Ross Marino Warren Cini Linda Parisi Gino Dibella Mary Dibella Ross Thomason Greg Clarke Ross Leotta	
19-04-11 Tully	Bruno Maifred Graham Maifredi Alf Patane Stuart Gilbert Anthony Nucifora George Bosnich Leo Pennisi Dennis Romano Michael Rosendahl Mark La Spina Gerry Lizzio Len Dibella Gurinder Singh Mavi Harkarn Singh Mavi Bernie Reitano Alfio Cali Mick Reitano - Babinda-SJ	Claire Bailey (TCPSL-previously attended: not counted) Graham Cripps (TCPSL)
28-04-11 Herbert	Stephen Nowak Stephen Rapetti Ian Morley Ray Cervellin Victor Cervellin	Roderick Fletcher (BSES)

	Vince Balanzategui Bruno Casale Joe Grotelli Ed Hobbs Graham Huston Brian Tabone Sam Patane	
26-05-11 Tully	Joseph Formosa Damien Rigato Hubert Moran Bruno Pietrobon Gloria Piertobon Peter Caligaris Rob Collins	
27-05-11 Herbert	Steven Leonelli John Roggero Gerald Girgenti Joe Girgenti* Michael Comas Elio Tua Steve Lavarini Joe Sorbello Raymond Cavallaro Robert Quabba Barry Butler Peter Vezzoli Jeff Bow	Josh Jackson