Company Overview
2014

Anton Barton
Managing Director, BioAg Pty Ltd

October, 2014
Our Mission

To deliver superior soil health and plant nutrition products and practices that provide both a sustainable economic benefit to farmers and growers, and have a positive effect on the environment.

1999
Formed by Anton Barton & Jeptha Gates

Jeptha Gates
American biological farming consultant
Consultant of the year (as voted by peers)

Anton Barton
Long-time biological farming advocate
Extensive experience in production & distribution

Our Australian presence

Distribution
NSW, VIC, SA, TAS

Liquids production plant
Narrandera NSW

Head Office
Narrandera

Quarry facility
Geelong VIC

Ownership & management

Private Company formed in 1999
Barfam Holdings Pty Ltd atf The Barton Family Trust – 100% share holding

Board of Directors

Darrel Drieberg
Chairman
Dip. Business Studies – Accounting, CMA
Darrel Drieberg specialises in advising companies on corporate strategy, financial strategy and performance measurement.
Since 1990 his practice has also been involved in executive education and mentoring senior executives.
In 1996 he qualified as a Licensed Real Estate Agent. He is a Director of the Mental Illness Fellowship Victoria, a Director of Relocations in Melbourne – executive relocation consultants and a Director of SSK Property Solutions – a boutique property management company.

Anton Barton
Managing Director (Executive Director)
MBA
Anton has more than 20 years of experience in sales, marketing and business management within the agribusiness and industrial sectors.
He is responsible for sales management, marketing and administration.
Born and raised on a large sheep station in western Queensland, Anton has a deep empathy for agriculture and its people.
Registered Trademarks

Solid, phosphate-based fertilisers
- BioAgPhos®
- BioAg Superb®
- Pasture Primo®

Agricultural digester
- Digest-it®

Liquid soil health & plant nutrition products
- Balance & Grow®
- Fruit & Balance®
- Soil & Seed®

New Zealand
- Roots & Shoots®
- Flower & Fruit®

BioAg®
Technology & product evolution

- **1983-98**
  - BioAg founded by three shareholders (including Anton Barton & Jeptha Gates) to manufacture and distribute microbial culture products. (15,000 x $1 share at issue).
- **1999**
  - Pilot liquid manufacturing facility built near Griffith, Australia.
  - Jeptha Gates signed sale agreement to Anton Barton, 15-years to the day since BioAg company registration.
- **2000**
  - Fermented microbial cultures developed by Jeptha Gates (Memphis, TN) with assistance of Dr. Fred Wood.
  - BioAgPhos digested RPR product developed.
  - Commercial liquid product range to be sold.
- **2001**
  - State of the art liquid production facility built at Narrandera, Australia on green-field site.
- **2002**
  - Solids manufacturing operation moved to Batesford Quarry near Geelong, Australia.
  - Importing of raw materials commenced through LaSelles Wharf, Geelong.
- **2005**
  - Current BioAg head office and laboratories building purchased and refurbished.
- **2006**
  - Purpose-built solids manufacturing plant commissioned.
- **2009**
  - BioAgPhos expanded to include BioAgPhos blends (i.e., lime, gypsum, elemental sulphur, K2SO4, magnetite).
- **2010**
  - Solid product range expanded to include BioAgPhos blends.
- **2014**
  - Commenced importing bulk Egyptian RPR into Port Kembla, Australia.
Evolution & manufacture

**Product development**
- 15 years product development
- Development of unique, purpose-built manufacturing plant
- Specific microbial seed cultures unique to each product
- 7 years fine tuning blends
- Typical inputs include:
  - molasses
  - raw sugar
  - seaweed concentrate
  - fish hydrolysate

**Production**
- 22-24 day production cycle
- Continuously monitored
- Occurs via aerobic fermentation
- Control inputs temperature
- Quality control analysis & testing BioAg laboratory
- Product stabilisation & filtration
- Aeration agitation duration

**Product lines**
- 3 Plant nutrition products
  - Soil & Seed Balance & Grow
  - Fruit & Balance
- 3 Digester products
  - Effluent
  - Stubble
  - Phosphate rock
- Conventional & organic blends available for each.
## Mode of action **Solid P-based fertiliser products**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Key components</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
</table>
| BioAg solid phosphate-based fertilisers | BioAg phosphate digester (proprietary microbial culture).  
High-grade reactive phosphate rock (RPR).  
- High citric & formic acid solubility.  
- High phosphorus content (13%). | Microbial culture digests phosphorus & other nutrients, adding them to the nutrient reservoir in the soil, in a plant-available form.  
Soil biology is enhanced along with a range of minerals, amino acids, vitamins, enzymes & proteins.  
Provides sustained release & availability of phosphorus for crop & pasture uptake. | Approx. 1/3 of nutrients are immediately available, while the remainder is slowly digested & made available.  
Reduces the amount of nutrient traditionally lost through issues such as leaching & ‘lock-up’.  
Increases beneficial soil biology population. |
## Mode of action **Liquid soil health & plant nutrition range**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Key components</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioAg liquid fermented cultures.</td>
<td>A range of proprietary microbial culture blends designed for specific periods in a crops growth cycle. Source of fermented microbial cultures containing vitamins, minerals, proteins, enzymes, amino acids, carbohydrates, dormant organisms &amp; growth promoters.</td>
<td>Active liquid form delivers beneficial ingredients in a form ready for immediate uptake. Adds to, and stimulates existing microbial activity in the soil. Effective bio-chelator of soluble nutrients. Convert soluble nutrients into a microbial state.</td>
<td>Makes other inputs more readily available to the plant. Unlocks existing nutrients in the soil. Protects applied &amp; existing nutrients from becoming <em>tied up</em>. Improves utilisation of nutrients &amp; moisture. Reduces the need for various inputs over time. Increases yields &amp; quality of yield. Unblocks the flow of nutrients within the plant. Increases the plants resistance to stresses such as heat &amp; frost.</td>
</tr>
</tbody>
</table>
Corn trials
## Trial replications & treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standard practice</td>
</tr>
</tbody>
</table>
| 2         | Standard practice **less 15% N**  
BioAg Soil & Seed at 8 L/ha  
BioAg Balance & Grow at 3 L/ha  
BioAg Fruit & Balance at 4 L/ha |
| 3         | Standard practice  
BioAg Soil & Seed at 9 L/ha  
BioAg Balance & Grow at 4 L/ha  
BioAg Fruit & Balance at 4 L/ha |

**Standard Practice**  
General fertiliser in March  
N 20, P<sub>2</sub>O<sub>5</sub> 80, K<sub>2</sub>O 80  
150 units of 32% N knifed in.  
The 15% less went out at 125 units knifed in.

AgriCenter International Corn Trials 2013

Yield (T/ha)

### AgriCenter International Corn Trials 2013

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Bu/acre</th>
<th>Kg/ha</th>
<th>Mt/ha</th>
<th>% Increase in yield</th>
<th>Gross return A$/ha</th>
<th>Increase on return A$/ha</th>
<th>Treatment costs A$/ha</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>166</td>
<td>10,400</td>
<td>10.4</td>
<td>-</td>
<td>$2,704</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2*</td>
<td>191</td>
<td>11,965</td>
<td>11.97</td>
<td>15.1%</td>
<td>$3,111</td>
<td>$407</td>
<td>$49</td>
<td>7.36</td>
</tr>
<tr>
<td>3</td>
<td>210</td>
<td>13,197</td>
<td>13.2</td>
<td>26.9%</td>
<td>$3,431</td>
<td>$727</td>
<td>$104</td>
<td>5.99</td>
</tr>
</tbody>
</table>

*Nitrogen treatment costs were reduced by 15%, saving $42.20/ha.


Soybean trials
### AgriCenter International Soybean Trials 2013

#### Trial replications & treatments

<table>
<thead>
<tr>
<th>Treatment</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standard practice</td>
</tr>
</tbody>
</table>
| 2         | Standard practice  
BioAg Soil & Seed at 6 L/ha  
BioAg Balance & Grow at 3 L/ha  
BioAg Fruit & Balance at 4 L/ha |
| 3         | Standard practice  
BioAg Soil & Seed at 7 L/ha  
BioAg Balance & Grow at 3 L/ha  
BioAg Fruit & Balance at 4 L/ha |
| 4         | Standard practice  
BioAg Soil & Seed at 8 L/ha  
BioAg Balance & Grow at 3 L/ha  
BioAg Fruit & Balance at 4 L/ha |

**Standard Practice**  
General fertiliser in March  
N 20, P<sub>2</sub>O<sub>5</sub> 80, K<sub>2</sub>O 80

AgriCenter International Soybean Trials 2013

Yield (T/ha)

## AgriCenter International Soybean Trials 2013

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Bu/acre</th>
<th>Kg/ha</th>
<th>Mt/ha</th>
<th>% increase in yield</th>
<th>Gross return A$/ha</th>
<th>Increase on return A$/ha</th>
<th>Treatment costs A$/ha</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>33</td>
<td>2,229</td>
<td>2.23</td>
<td>-</td>
<td>$1,179</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>2,591</td>
<td>2.59</td>
<td>16.2%</td>
<td>$1,371</td>
<td>$191</td>
<td>$76</td>
<td>1.52</td>
</tr>
<tr>
<td>3</td>
<td>41</td>
<td>2,735</td>
<td>2.74</td>
<td>22.7%</td>
<td>$1,447</td>
<td>$268</td>
<td>$83</td>
<td>2.23</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>3,036</td>
<td>3.04</td>
<td>36.2%</td>
<td>$1,606</td>
<td>$427</td>
<td>$90</td>
<td>3.74</td>
</tr>
</tbody>
</table>


Cotton trials

Cotton Grower of the Year
Macquarie Valley 2014
Scott Vincent, Narromine NSW
Winning pivot 14.3 bales on 7.8ML of water.
Average yield 13.3 b/ha.
District average yield 10.3 b/ha.

Products
BioAgPhos in place of SSP (54 units/ha)
BioAg Soil & Seed @ 14L/ha
BioAg Balance & Grow @ 2L/ha
BioAg Fruit & Balance @ 2L/ha
Lime (400kg/ha), SOA & urea (247 units/ha)
<table>
<thead>
<tr>
<th>Treatment</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standard practice</td>
</tr>
</tbody>
</table>
| 2         | Standard practice **less 15% N**  
BioAg Soil & Seed at 8.5 L/ha  
BioAg Balance & Grow at 4 L/ha  
BioAg Fruit & Balance at 5 L/ha |
| 3         | Standard practice  
BioAg Soil & Seed at 10 L/ha  
BioAg Balance & Grow at 4 L/ha  
BioAg Fruit & Balance at 5 L/ha |

**Standard Practice**
General fertiliser in March  
N 20, P₂O₅ 80, K₂O 80  
Then 150 units knifed in at 32%N.

AgriCenter International Cotton Trials 2013

Lint yield (kg/ha)

AgriCenter International Cotton Trials 2013

Seed yield (kg/ha)

## AgriCenter International Cotton Trials 2013

*Note: T2, 15% less N applied*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Lint lbs/acre</th>
<th>Lint kg/ha</th>
<th>Lint bales/ha</th>
<th>Seed lbs/acre</th>
<th>Seed kg/ha</th>
<th>% Increase in lint yield</th>
<th>% Increase in seed yield</th>
<th>Gross return A$/ha</th>
<th>Increase return A$/ha</th>
<th>Treatment costs A$/ha</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>1,193</td>
<td>1,337</td>
<td>5.9</td>
<td>2,829</td>
<td>3,171</td>
<td>-</td>
<td>-</td>
<td>$3,676</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2*</td>
<td>1,292</td>
<td>1,449</td>
<td>6.65</td>
<td>3,094</td>
<td>3,465</td>
<td>12.8%</td>
<td>9.3%</td>
<td>$4,120</td>
<td>$444</td>
<td>$106</td>
<td>3.2</td>
</tr>
<tr>
<td>3</td>
<td>1,351</td>
<td>1,514</td>
<td>6.95</td>
<td>3,287</td>
<td>3,682</td>
<td>17.9%</td>
<td>16.1%</td>
<td>$4,321</td>
<td>$645</td>
<td>$113</td>
<td>4.72</td>
</tr>
</tbody>
</table>

Sugar cane trials

T1  T2  T3  T4
Centre for Strategic Studies Sugar Cane Trials 2011-12

Replicated, randomised, statistically significant. Compared a control treatment v three BioAg treatments.

**Trial replications & treatments**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Control)</td>
<td>Standard practice</td>
</tr>
<tr>
<td>2</td>
<td>Standard practice BioAg Soil &amp; Seed at 30 L/ha</td>
</tr>
<tr>
<td>3</td>
<td>Standard practice less SSP &amp; less Phospho-Bacteria BioAg BioAgPhos 301 kg/ha</td>
</tr>
<tr>
<td>4</td>
<td>Standard practice less SSP &amp; less Phospho-Bacteria BioAg BioAgPhos 301 kg/ha BioAg Soil &amp; Seed at 30 L/ha</td>
</tr>
</tbody>
</table>

**Standard Practice**
Standard district practice (as recommended by the Department of Agriculture, West Bengal)

Cow manure 10T
Urea 435 kg
SSP 465 kg
MOP 168 kg
ZnSO₄ 2 kg
B 1 kg
Phospho-Bacteria 1.5 kg

Centre for Strategic Studies Sugar Cane Trials 2011-12

Cane yield & juice yield

Cane yield (T/ha)

Juice yield* (ml/plant)

*Average of 5 plants selected at random

Centre for Strategic Studies Sugar Cane Trials 2011-12

Results

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Cane height (cm)</th>
<th>Cane diameter (cm)</th>
<th>Yield T/ha</th>
<th>Extractable juice (ml/plant)</th>
<th>Revenue (net)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (control)</td>
<td>102.9</td>
<td>4.8</td>
<td>51.3</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>120.0 (+17%)</td>
<td>5.1 (+7%)</td>
<td>60.2 (+17%)</td>
<td>300 (+20%)</td>
<td>+13%</td>
</tr>
<tr>
<td>3</td>
<td>127.6 (+24%)</td>
<td>4.7 (-2%)</td>
<td>65.6 (+28%)</td>
<td>500 (+100%)</td>
<td>+33%</td>
</tr>
<tr>
<td>4</td>
<td>148.5 (+44%)</td>
<td>5.4 (+12%)</td>
<td>78.5 (+53%)</td>
<td>500 (+100%)</td>
<td>+55%</td>
</tr>
</tbody>
</table>

Centre for Strategic Studies Sugar Cane **Trials 2011-12**

**Summary**

- **T2 Standard practice + BioAg Soil & Seed**
  - Yield improvement +17%
  - Net return +13%
  - Vegetative growth improvement

- **T3 BioAg BioAgPhos in place of SSP**
  - Yield improvement +28%
  - Net return +33%
  - Vegetative growth improvement

- **T4 BioAg BioAgPhos in place of SSP + BioAg Soil & Seed**
  - Yield improvement +53%
  - Net return +55%
  - Vegetative growth improvement +44%
  - Cane diameter +12%

Reactive Phosphate Rock trials

DPI fertiliser trials 2014 Yass NSW

Control

BioAg Superb®
0:9:0:7
300 kg/ha
Applied every second year

Single Super
125 kg/ha
Applied annually

Urea
100 kg/ha
Applied annually
Reactive Phosphate Rock **Trial Results**

BioAg has committed itself to producing the highest quality product which means sourcing the best raw materials possible. BioAgPhos is based on high grade reactive phosphate rock (RPR) which has high formic & citric solubility & high levels of available phosphorus (P).

**The role of reactive rock phosphate fertilisers in Australia**

CSIRO Publishing
Australian Journal of Experimental Agriculture, 1997

Trial location: Tasmania, Australia

Compared five reactive phosphate rocks (RPR’s) & single super phosphate (SSP)
Dry matter measured annually (1992-99)
phosphorus (P) applied annually (1996-99)

Results
Applied at 17kg/ha, RPR produced more dry matter than SSP in each year of the trial.

RPR produced more dry matter than SSP once the applications of P ceased (1995) for each subsequent year of trial measurements (2000).
Reactive Phosphate Rock Trial Results

Rock Phosphate and superphosphate as sources of phosphorus for subterranean clover on an acid sandy soil
Waite Agricultural Research Institute, Glen Osmond, South Australia
Trial location: Mount Compass (South Australia)

Randomised block with four replications
RPR & SSP applied at four different rates
P applied autumn of the first year only
Dry matter yield measured Oct/Nov annually
Soil P levels evaluated annually post-harvest

Results
Both RPR & SSP outperformed the control in all three years of the trial.
RPR outperformed SSP in year one at application rate of 66kg/ha (other rates had similar results).
By year three, RPR was outperforming SSP at all application rates.
Reactive Phosphate Rock Trial Results

Agronomy Field Trials
Reactive Phosphate Rock Evaluation (Published 1996)
Trial location: Kangaroo Island, South Australia

Standard P application of 15kg/ha applied February
Dry matter yield measured in October
Soil P & S levels evaluated post-harvest

Results
RPR achieved dry matter yield production of approximately 1,000 kg/ha more than the other eight participating products.
Progressing the **opportunity**

Position **statement**

BioAg seeks:

Sophisticated, entrenched commercial partners who are already established in the fertiliser and agricultural chemical distribution business, and who provide high quality agronomic advice to the competent farmers located in their geographic areas of operation.

To develop strategic relationships with commercial partners where there is a natural fit and the opportunity to transfer knowledge so that farmer outcomes can be improved via the implementation of BioAg programs. Profitability is then enhanced for all participants in the BioAg product supply chain.

To offer reseller margins that are competitive and attractive. We offer additional margin incentive for strategic partners to assist in the market development of our brand and products. The achievement of agreed sales targets triggers a further reward for strategic partners.
Key Contacts

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