Stage 2 Research Project – 2014

RPA [ ] RPB [x]

School Assessment Cover Sheet for

➢ Assessment Type 2: Research Outcome

SACE Registration Number: [ ]

Research Question: What are the long term monetary, health and production benefits of becoming a certified Organic or Biodynamic cereal producer in South Australia?

word count: 2178

S1 Research question clearly outlines the purpose and scope of the research.
Reap the Rewards of Organic and Biodynamic Cereal Production

Organic and Biodynamic consumption is not just a fad that will eventually phase out into society, it is here to stay and there is no better time than now to convert your property! In fact with the growing demand and shortfall of certified grains in Australia why not convert to Organic or Biodynamic cereal production and get ready to reap the rewards?

What does it mean to produce Organic products, and additionally, Biodynamic products? Organic production, as defined by IFOAM (The International Federation of Organic Agriculture Movements) involves working productively and efficiently with nature. Organic producer, Ross Carter, interprets Organic production as utilising natural methods, products and amendments whilst avoiding synthetic chemicals and fertilisers. The next step from ‘Biodynamics’, Organic and cereal producer, L.E Neitschke, defines Biodynamics as the “...pinnacle of Organics.” Biodynamics not only covers Organics, but has at its heart a philosophical element; the notion of working with the cycles of nature and utilising a property as a whole ecological system. Whilst beneficial, this method of farming isn’t always suited to large scale cereal production, as summarised by Organic producer, John Schwarz.

Before any ‘rewards’ of Organic or Biodynamic cereal production can be ‘reaped’, the certification process must firstly be addressed. From first-hand experience, Schwarz admitted that, “[yes], the conversion to Organic (was) the biggest hurdle, with no Organic prices for benefits and no conventional chemicals and fertilisers to boost yield.” Alternatively, Carter expressed that “...the certification process (was) not that onerous,” with Schwarz further admitting that, “...once though this period, the wait (was) worthwhile.” Several organisations in Australia accredit certification under the National Standard for Organic and Biodynamic produce; AQIS (Australian Quarantine and Inspection Service). So what is the best way to go about certification? A primary producer must begin by researching organisations best suited to certify their property. In reference to the renowned quote, “...it’s not about what you know... but who you know,” producers will gain first-hand information by talking to Organic and Biodynamic producers about their experiences. It takes three years for a property to be ‘certified’. Whilst the first year’s product cannot be sold as ‘Organic’ or ‘Biodynamic’, produce can be sold as ‘In Conversion’ during the second and third years after conversion. In the early stages of certification, various soil and crop samples are taken during inspections, ensuring the property is cleared of chemical residue. These inspections are compulsory and occur annually. J McGuire, producer of Organic cereals, agreed that the “…certification process is merely necessary and of no great inconvenience. The benefits of avoiding unnecessary and expensive damaging toxic chemicals will always be worth pursuing.”
Fresh off the Farm

Assessment Topic 5: Resource Endowment, Pages 1 to 5
Cereal producer John Schwartz, shares his first-hand experience of converting to Organic production after being told by his doctor, ‘...the farm was killing him’.

Previously, Schwartz practiced conventional farming methods for many years, explaining how, ‘...we converted to Organic production after I was told by my doctor I would have to get off of the farm. We realised that the chemicals were the problem and not the farm.’ After hearing Organic producers share their experiences, along with much research, John and his wife Jenny, decided to adopt an Organic approach to farming. Schwartz explained how, ‘...several agronomists advised us to try in a small way first, but because my health was at stake we decided we didn’t have that option.’ In a short space of time they gave up all chemicals on the property, and addressed the certification requirements for NAASSA (MA
certification). From this widespread movement of point.

A significant benefit to consumers, as agreed by Australian Certified Organic, (2013) and surveyed producers, is that Organic produce has a higher nutritional density. The Australian Certified Organic, (2013) reports that over 100 studies show that the nutritional premium of Organic plant-based food products, the source continued to explain, has more taste, texture and aroma. In theory, Organic production proves to be beneficial to the sustainability of Australian agriculture. Putting this into practice, various Organic and Biodynamic producers observed that in comparison to conventional properties, the soil is softer and more fertile, filled with earthworms and living organisms, with considerable microbe activity and less weed and insect problems. An increase in birdlife was observed by Schwartz, as a result of...
chemicals are triggering more and more people to develop such food intolerances. Continuing to report how a local consumer, intolerant to wheat products, was able to consume Organic wheat without adverse effects. Whilst this theory is from observation only, the Dietitians Association of Australia, (n.d.) similarly reports that, "people who have food intolerance react to chemicals (...) added to foods during processing". Once ingested through food, chemicals accumulate in the fatty tissue of consumers, with both humans and livestock; this is known as bioaccumulation.10 Humans ingest chemicals directly through food products, and indirectly by being next in line through the food chain. As Schwarz explained, livestock is affected by chemicals and become carriers through the food chain to consumers. Organic and Biodynamic production is not just about, ‘what’s in it’ but more about ‘what’s not in it’. Organic and Biodynamic production is a logical way to avoiding chemicals in food products and ensuring the health of farm workers and families.

Organic and Biodynamic production incorporates monetary, production and health benefits, for producers, consumers and for the future of Australian agriculture. Just remember, there is no better time than the present to reap the rewards of Organic and Biodynamic cereal production and consumption. AOP

S1 Synthesis of knowledge and ideas can be seen in the structure of the analysis in each paragraph. Key areas of research are identified at the beginning of each paragraph. Discussion of issues for and against are raised. Conclusions are drawn to support argument. S2 Substantiation of research findings are in a variety of ways - in text referencing and quotations, footnotes, visual photos, diagrams and charts. All are appropriately placed and sourced. S3 The arguments for using organic and bio-dynamic farming techniques are explained in a well structured article, using clear and coherent expression. Interest is maintained through such things as the magazine style of writing, the photos/charts and graphs to support the text, and the reference to individual experiences.

1 Australian Certified Organic, (n.d)
2 Australian Certified Organic, (n.d)
3 Organic Federation of Australia, (2014)
4 Australian Certified Organic, (2013)
5 Organic Federation of Australia, (2014)
6 National Resources Management and Environmental Department, (1998)
7 Rodale Institute, (n.d.)
8 Mayo Clinic Staff, (1998-2014)

S2 In-text referencing using footnotes substantiate findings appropriately.
References


Australian Certified Organic, No Date. ORGANIC & BIODYNAMIC FARMING, LIVESTOCK, WILD HARVEST, GROWERS GROUPS. [Online]


Available at: http://www.highbrixgardens.com/what-is-brix.html [Accessed 8 September 2014].


Available at: http://www.niehs.nih.gov/health/topics/agents/pesticides/ [Accessed 8 September 2014].


Rodal Institute, n.d. Research, Soil Health. [Online]
Available at: http://rodaleinstitute.org/ [Accessed 17 September 2014].

Available at: http://water.epa.gov/polwaste/sediments/cs/bioteesting_index.cfm [Accessed 15 September 2014].

S2 Substantiation of sources used.