Department of Primary Industries

Tocal Farm- Meet the managers Virtual Farm Case Study

Supporting document

NSW DPI Schools Program

www.dpi.nsw.gov.au

connect • grow • learn
DPI in SCHOOLS

Author: Meg Dunford (Project Officer School programs, NSW DPI Orange).

Editors and Advisors: Michelle Fifield (Coordinator School programs, NSW DPI Orange) and Jo Hathway (Project Officer School programs, NSW DPI Tocal College).

Disclaimer: This resource is produced for use by teachers and students. The information contained in this resource is based on knowledge and understanding at the time of writing (August 2020). However, because of advances in knowledge and technology, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information. To the extent permitted by law, the Department of Primary Industries within Regional NSW excludes all liability for any direct or indirect losses, damages, costs or expenses, incurred by, or arising by reason of, any person using or relying on this document (in part or in whole) and any information or material contained in it. Recognising that some of the information in this document is provided by third parties, the Crown in right of the State of New South Wales acting through the Department of Primary Industries within Regional NSW, the author and the publisher take no responsibility for the accuracy, currency, reliability and correctness of any information included in the document provided by third parties. Department of Primary Industries within Regional NSW expressly disclaims responsibility for any error in, or omission from, this report arising from, or in connection, with any of the assumptions being incorrect or otherwise.

Copyright
© The Crown in right of the State of New South Wales acting through the Department of Primary Industries within Regional NSW 2020, except where indicated otherwise. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0). Under this licence the material is available for free use and adaption. Educators may use, share, adapt, and republish material from the resource. You must give appropriate credit, provide a link to the licence, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use..
(https://creativecommons.org/licenses/by-nc/4.0/)

Contents

Tocal virtual Farm Case Study - Meet the managers 4
Property description 4
Pre or post virtual excursion activities 5
Tocal dairy enterprise 6
Management 6
Marketing 10
Farm technology 11
Pastures and irrigation enterprise 12
Management 12
Marketing 17
Farm technology 18

Tocal virtual Farm Case Study - Meet the managers

Property description

Tocal is 2200 hectares. The property contains a range of natural ecosystems, from rainforest remnants and wetlands to dry sclerophyll forests.

Rainfall

Mean = 972 mm, Median = 749 mm.

Soils

Soils form a complex pattern across the property. This can be simplified by looking at the soil landscapes, that is the uplands or hills with erosional soil landscapes, the floodplain with alluvial (made up of materials left by rivers) soil landscapes, the midslopes with colluvial (loose earth accumulated at the base of a hill usually moved by gravity) soil landscapes and the vestigial soil landscapes that remain as evidence of volcanic activity. Each of the soils represents different production and management opportunities.

Beef

Beef cattle are run over an area of 1790 hectares, made up of prime pasture, medium pasture and poor pasture land as well as bushland.

The average herd size is 1100 head – ranging between 800 and 1400 depending on the time of the year and seasonal conditions. The breeding herd averages 300 Brangus, 103 Shorthorn, 102 Angus, 60 Charolais cows and 12 Brangus, 5 Shorthorn, 9 Angus, 3 Charolais bulls. Our main market is the sale of weaners on local stores market – around 450 head per year.

Dairy

The Dairy covers an area of 260 hectares. The herd is 580 head (mainly Holstein Friesian) of which approximately 305 are milked twice daily. Our average weekly production is 53,000 litres/week. We supply to Norco Cooperative. Milk is transported to Raleigh near Coffs Harbour for processing.

The pasture on the dairy is Kikuyu based, oversown in early autumn with ryegrass, white cover and red clover with some chicory and plantain and fertilised with N+P+K regularly as well as selective use of nitrogen and poultry litter. Some paddocks are limed.

Eggs

Free-range eggs are produced under contract to Pace Farms on an area of 86 hectares. The hens are housed in five sheds covering an area of 8,762m2. The sheds have the capacity to house 90,000 hens and we currently run Isa Brown hens. The hens have access to 11 hectares for free ranging.

Sheep

Tocal runs a self-replacing Dohne flock of 300 ewes on an area of 113 hectares. This is a demonstration flock used for student training. The flock produces over 1 tonne of wool per year as well as prime lambs. The sheep are guarded by a Maremma dog named Duneedoo.

Horses

Australian Stock Horses are bred at Tocal for student training and stock work. At any one stage Tocal will have over one hundred horses on the property from young foals, yearlings, breakers, work plant horses and broodmares. Foaling begins around August and the foals are weaned and handled at 5 months.

Pre or post virtual excursion activities

Either prior to or post the virtual excursion, students are advised to complete the following activities using the NSW DPI Tocal Virtual farm series.

Watch:

- Videos from the Tocal farms playlist
- One year at Tocal

Explore:

Tocal Virtual Farm for info in soils, water, topographic landscapes, land capability and enterprise information

Complete:

- Systems agriculture worksheet
- Calendar of operations worksheet
- Measuring ag finance and performance worksheet
- Methods of ag record keeping worksheet
- Soils worksheet

Tocal dairy enterprise

Management

Enterprise description	
Manager/s	
Staff	
Enterprise size (Ha)	
Total number of head	
Description of production groups	
Infrastructure	
Other	

- List annual operations for the enterprise production cycle (students to make a calendar of operations using this information after the talk)

- Identify problems associated with production on the farm

- Describe the effect of demand and the role of consumer trends on enterprise production

- Identify management practices being used to address environmental sustainability

- Describe any plans for future farm/enterprise improvement

Marketing

- Identify and describe the markets for this enterprise

- Describe the marketing strategy used for the dairy enterprise and why they are used

Farm technology

- Identify technologies used for the enterprise and explain how they are used

Pastures and irrigation enterprise

Management

Enterprise description	
Manager/s	
Staff	
Enterprise size (Ha)	
Land to irrigation production	
Land to dryland production	
Description of production	
Species sown and how are they used	
Infrastructure	

Water	
Soils	
Climate	
Other	

- List annual operations for the enterprise production cycle (students to make a calendar of operations using this information after the talk)

- Identify problems associated with production on the farm

- Describe the effect of demand and the role of consumer trends on enterprise production

- Identify management practices being used to address environmental sustainability

- Describe any plans for future farm/enterprise improvement

Marketing

- Identify and describe the markets for this enterprise

- Describe the marketing strategy used for the pastures and irrigation enterprise and explain why they are used

Farm technology

- Identify technologies used for the enterprise and explain how they are used