



Case Study

New Sugarcane Grower



LANDHOLDER	Joseph Russo
LOCATION	Bambaroo
CATCHMENT	Lower Herbert
RAINFALL	1432mm
PROPERTY SIZE	48ha
ON-GROUND PROVIDER	HCPSL

Project Catalyst is a grower led, sugar cane innovation and adoption project that explores, develops and validates farm management practice change to improve the enduring water quality of the Great Barrier Reef.

BROADER ADOPTION VALIDATION & GROWER SUPPORT

Founded in 2009, the project operates in the Mackay Whitsunday, Burdekin and Wet Tropic regions to deliver valued practice change outcomes and develop methods for industry adoption. Under the Broader Adoption and Grower Support program, professional on-ground service providers assist selected growers to adopt and validate appropriate change practices. Service providers continue to monitor implementation benefits and derived environmental performance improvements. Through targeted extension activities, the program seeks to accelerate the uptake and broader adoption of improved farming practices at local, regional and industry levels.



Great Barrier Reef Foundation



Goal

To learn and implement some new farming systems.



Overview

Joseph has only just taken on the farm less than two years ago and is learning how to manage soil constraints on his farm.

Action

- Soil testing
- Pathology soil testing (Pachymetra & nematodes)
- Variety mapping
- Liming plan

Outcome

- Joseph has implemented a nutrient management plan with HCPSL which has covered soil constraints that he needs to address like applying amelioration such as lime and gypsum. He has developed a variety plan to help him track where and what cane varieties he has and whether he should change them to resist pathological problems like pachymetra and smut.

N.F.P.A. Report				Area Fertiliser		Nitrogen Budget		Phosphorus Budget	
Year	20	21	22	kg/ha	kg/ha	kg/ha	kg/ha	kg/ha	kg/ha
2020-21	10	10	10	100	100	100	100	100	100
2021-22	10	10	10	100	100	100	100	100	100
2022-23	10	10	10	100	100	100	100	100	100

Fertiliser Budget 2020					Fertiliser Budget 2021				
Block	Area (ha)	N (kg/ha)	P (kg/ha)	Cost (\$)	Block	Area (ha)	N (kg/ha)	P (kg/ha)	Cost (\$)
1	10	100	100	1000	1	10	100	100	1000
2	10	100	100	1000	2	10	100	100	1000
3	10	100	100	1000	3	10	100	100	1000
4	10	100	100	1000	4	10	100	100	1000
5	10	100	100	1000	5	10	100	100	1000
6	10	100	100	1000	6	10	100	100	1000
7	10	100	100	1000	7	10	100	100	1000
8	10	100	100	1000	8	10	100	100	1000
9	10	100	100	1000	9	10	100	100	1000
10	10	100	100	1000	10	10	100	100	1000
11	10	100	100	1000	11	10	100	100	1000
12	10	100	100	1000	12	10	100	100	1000
13	10	100	100	1000	13	10	100	100	1000
14	10	100	100	1000	14	10	100	100	1000
15	10	100	100	1000	15	10	100	100	1000
16	10	100	100	1000	16	10	100	100	1000
17	10	100	100	1000	17	10	100	100	1000
18	10	100	100	1000	18	10	100	100	1000
19	10	100	100	1000	19	10	100	100	1000
20	10	100	100	1000	20	10	100	100	1000
21	10	100	100	1000	21	10	100	100	1000
22	10	100	100	1000	22	10	100	100	1000
23	10	100	100	1000	23	10	100	100	1000
24	10	100	100	1000	24	10	100	100	1000
25	10	100	100	1000	25	10	100	100	1000
26	10	100	100	1000	26	10	100	100	1000
27	10	100	100	1000	27	10	100	100	1000
28	10	100	100	1000	28	10	100	100	1000
29	10	100	100	1000	29	10	100	100	1000
30	10	100	100	1000	30	10	100	100	1000
31	10	100	100	1000	31	10	100	100	1000
32	10	100	100	1000	32	10	100	100	1000
33	10	100	100	1000	33	10	100	100	1000
34	10	100	100	1000	34	10	100	100	1000
35	10	100	100	1000	35	10	100	100	1000
36	10	100	100	1000	36	10	100	100	1000
37	10	100	100	1000	37	10	100	100	1000
38	10	100	100	1000	38	10	100	100	1000
39	10	100	100	1000	39	10	100	100	1000
40	10	100	100	1000	40	10	100	100	1000
41	10	100	100	1000	41	10	100	100	1000
42	10	100	100	1000	42	10	100	100	1000
43	10	100	100	1000	43	10	100	100	1000
44	10	100	100	1000	44	10	100	100	1000
45	10	100	100	1000	45	10	100	100	1000
46	10	100	100	1000	46	10	100	100	1000
47	10	100	100	1000	47	10	100	100	1000
48	10	100	100	1000	48	10	100	100	1000
49	10	100	100	1000	49	10	100	100	1000
50	10	100	100	1000	50	10	100	100	1000
51	10	100	100	1000	51	10	100	100	1000
52	10	100	100	1000	52	10	100	100	1000
53	10	100	100	1000	53	10	100	100	1000
54	10	100	100	1000	54	10	100	100	1000
55	10	100	100	1000	55	10	100	100	1000
56	10	100	100	1000	56	10	100	100	1000
57	10	100	100	1000	57	10	100	100	1000
58	10	100	100	1000	58	10	100	100	1000
59	10	100	100	1000	59	10	100	100	1000
60	10	100	100	1000	60	10	100	100	1000
61	10	100	100	1000	61	10	100	100	1000
62	10	100	100	1000	62	10	100	100	1000
63	10	100	100	1000	63	10	100	100	1000
64	10	100	100	1000	64	10	100	100	1000
65	10	100	100	1000	65	10	100	100	1000
66	10	100	100	1000	66	10	100	100	1000
67	10	100	100	1000	67	10	100	100	1000
68	10	100	100	1000	68	10	100	100	1000
69	10	100	100	1000	69	10	100	100	1000
70	10	100	100	1000	70	10	100	100	1000
71	10	100	100	1000	71	10	100	100	1000
72	10	100	100	1000	72	10	100	100	1000
73	10	100	100	1000	73	10	100	100	1000
74	10	100	100	1000	74	10	100	100	1000
75	10	100	100	1000	75	10	100	100	1000
76	10	100	100	1000	76	10	100	100	1000
77	10	100	100	1000	77	10	100	100	1000
78	10	100	100	1000	78	10	100	100	1000
79	10	100	100	1000	79	10	100	100	1000
80	10	100	100	1000	80	10	100	100	1000
81	10	100	100	1000	81	10	100	100	1000
82	10	100	100	1000	82	10	100	100	1000
83	10	100	100	1000	83	10	100	100	1000
84	10	100	100	1000	84	10	100	100	1000
85	10	100	100	1000	85	10	100	100	1000
86	10	100	100	1000	86	10	100	100	1000
87	10	100	100	1000	87	10	100	100	1000
88	10	100	100	1000	88	10	100	100	1000
89	10	100	100	1000	89	10	100	100	1000
90	10	100	100	1000	90	10	100	100	1000
91	10	100	100	1000	91	10	100	100	1000
92	10	100	100	1000	92	10	100	100	1000
93	10	100	100	1000	93	10	100	100	1000
94	10	100	100	1000	94	10	100	100	1000
95	10	100	100	1000	95	10	100	100	1000
96	10	100	100	1000	96	10	100	100	1000
97	10	100	100	1000	97	10	100	100	1000
98	10	100	100	1000	98	10	100	100	1000
99	10	100	100	1000	99	10	100	100	1000
100	10	100	100	1000	100	10	100	100	1000

Nutrient Plan budget tool

