

Precision Livestock Management

Chris Minehan



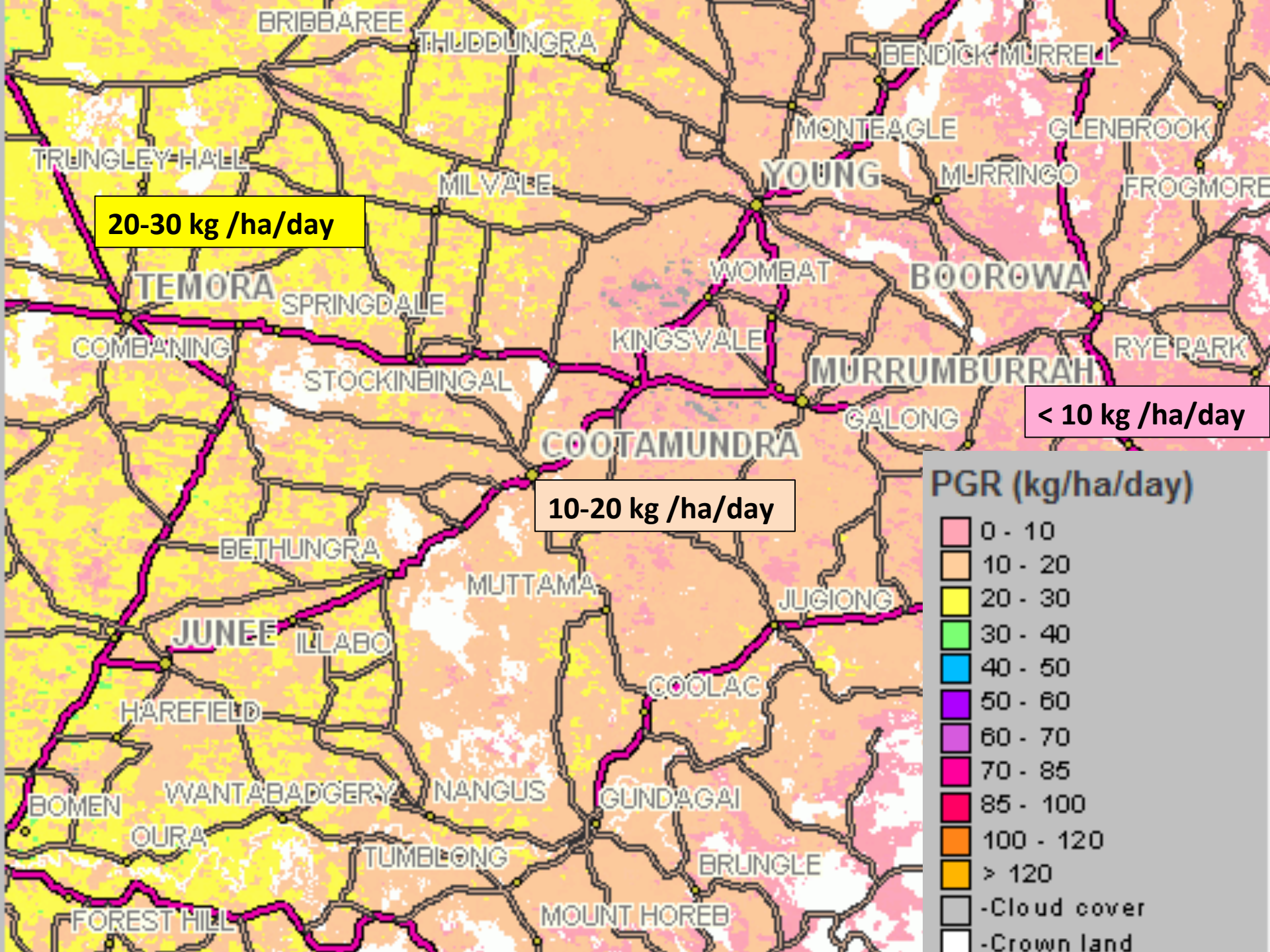
Precision Livestock

- Managing Pasture/Fodder
- Animal monitoring
- Performance recording
- Labour/time saving technology



Pastures from Space

www.pasturesfromspace.csiro.au



20-30 kg /ha/day

< 10 kg /ha/day

10-20 kg /ha/day

PGR (kg/ha/day)

Mean Pasture Growth Rate (kg/ha/day) 17th – 23rd July 2013

Temora (A)	21
Tenterfield (A)	21
The Coorong (DC)	18
Tiaro (S)	38
Toowoomba (C)	18
Towong (S)	11
Tumbarumba (A)	8
Tumby Bay (DC)	23
Tumut Shire (A)	9
Tweed (A)	46
Unincorp. Other Territories	15
Unincorporated ACT	6
Unincorporated SA	16
Unincorporated Vic	17
Upper Hunter Shire (A)	17
Upper Lachlan (A)	9
Uralla (A)	10
Urana (A)	21
Victor Harbor (C)	20
Wagga Wagga (C)	20

2012



2010





Rainfall to Pasture Growth Outlook Tool

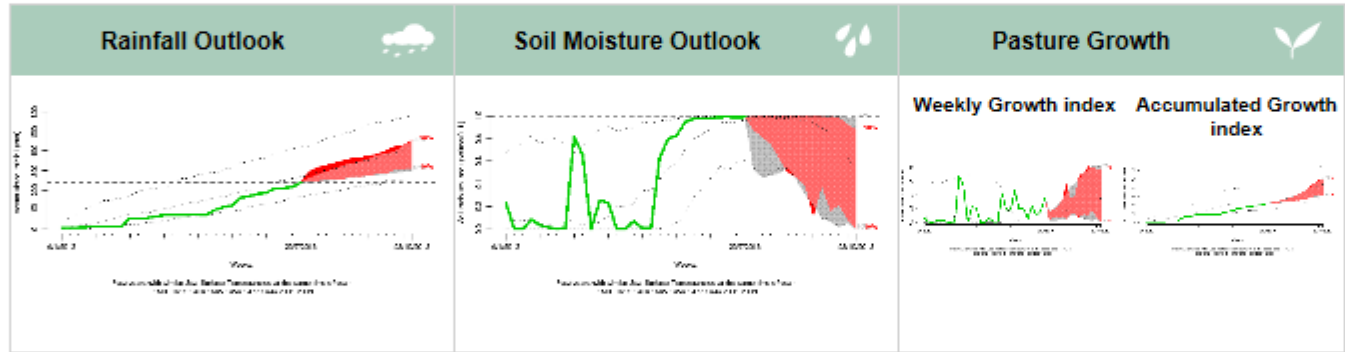
<http://rainfall.mla.com.au/Station>

Rainfall to Pasture Growth Outlook Tool

Site location	Elevation	Nearest urban centre or rural locality	Agro-Ecological Zones	Climate region	Average number of frost days (per year)
TEMORA (AGRICULTURAL RESEARCH STATION)	272	Temora	Temperate slopes and plains	9. Temperate no dry season (hot summer)	59

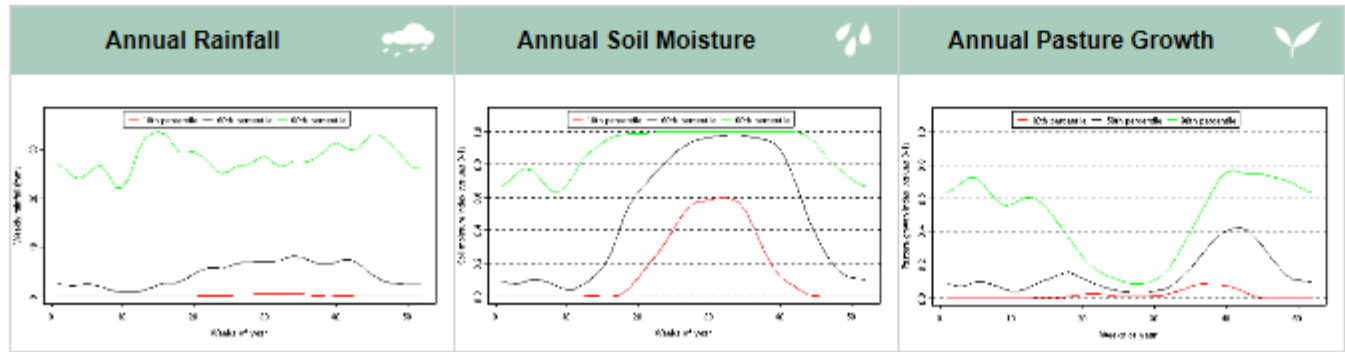
Outlook Data

Choose an updated accumulated chart to view for this weather station:



Annual Data

Choose an annual pattern to view for this weather station:



your weather stations please register and login to your account.

Enter a postcode or click on map to locate a weather station:

My weather stations :

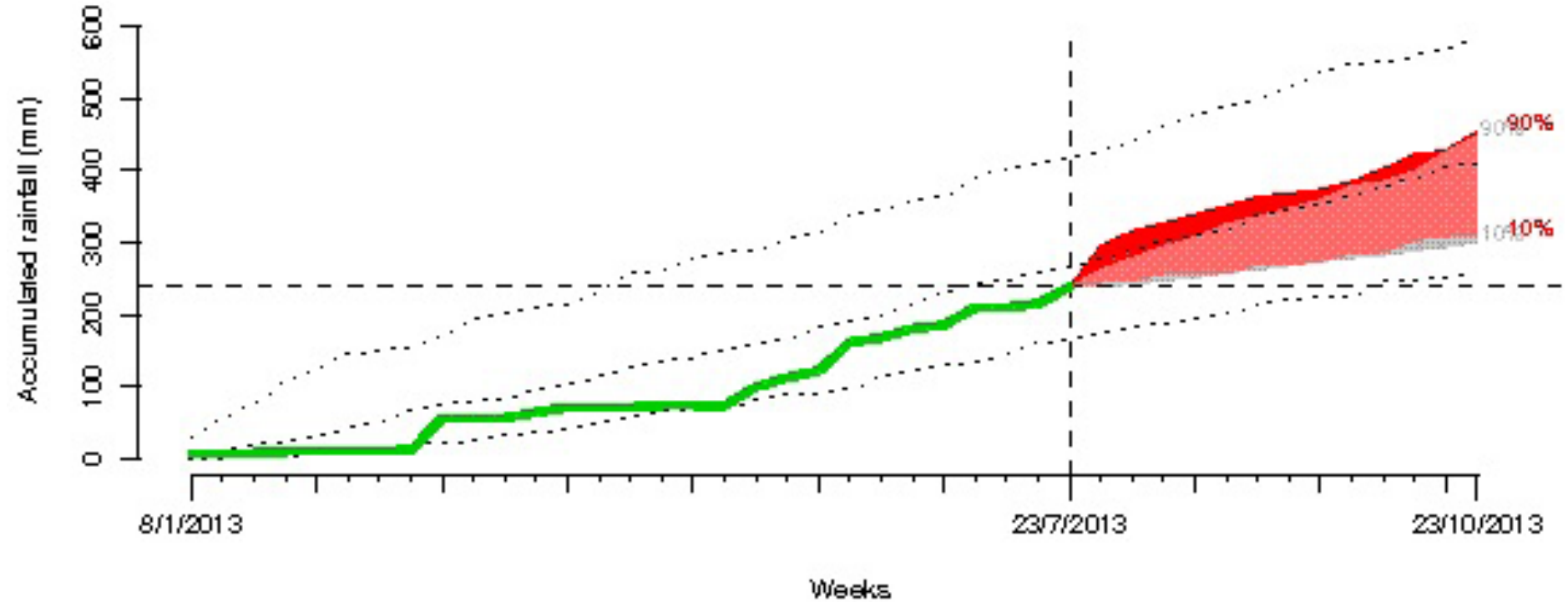
Home station:

Other stations:

- [BUMBALDRY \(CHEZ NOUS\) WA...](#)
- [COOTAMUNDRA \(LANDGROVE\)](#)
- [HARDEN \(BUNDARBO ST\)](#)
- [TEMORA \(AGRICULTURAL...](#)**
- [TOOTAL \(BRYNTIRION\)](#)



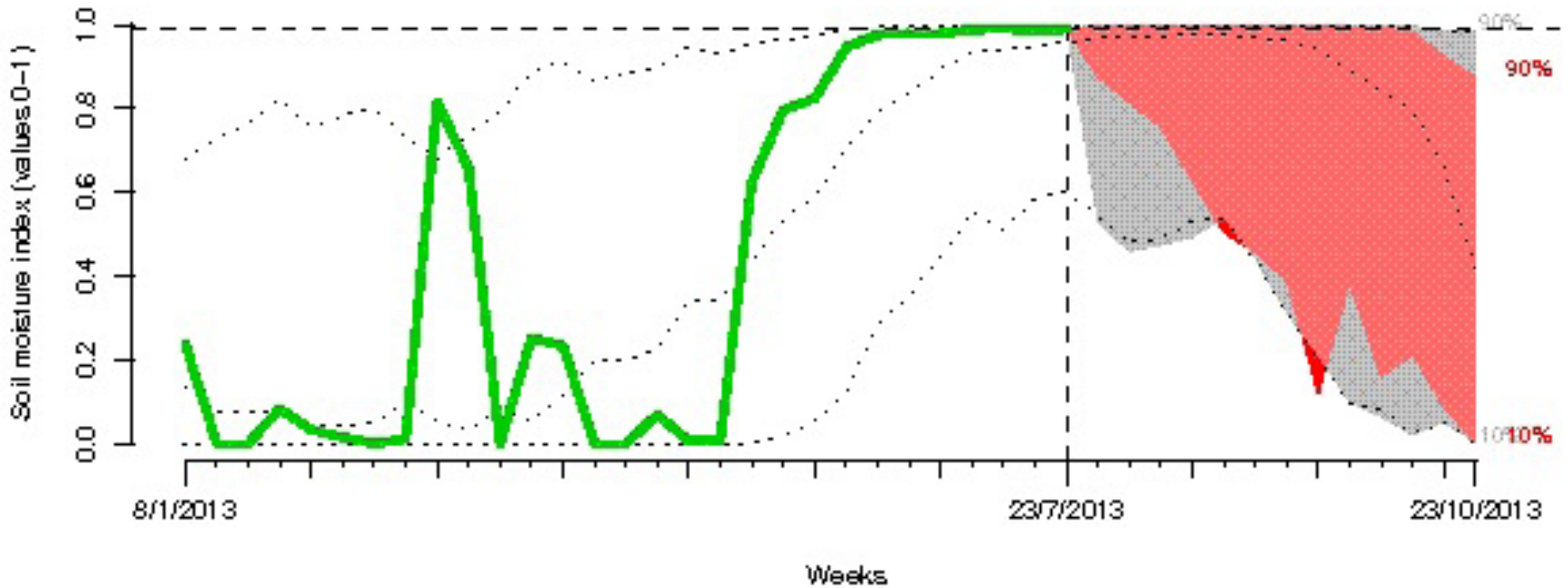
Temora Ag Innovation Centre RAINFALL



Past years with similar Sea Surface Temperatures at the same time of year:
1906 1912 1934 1945 1959 1977 1996 2001 2008

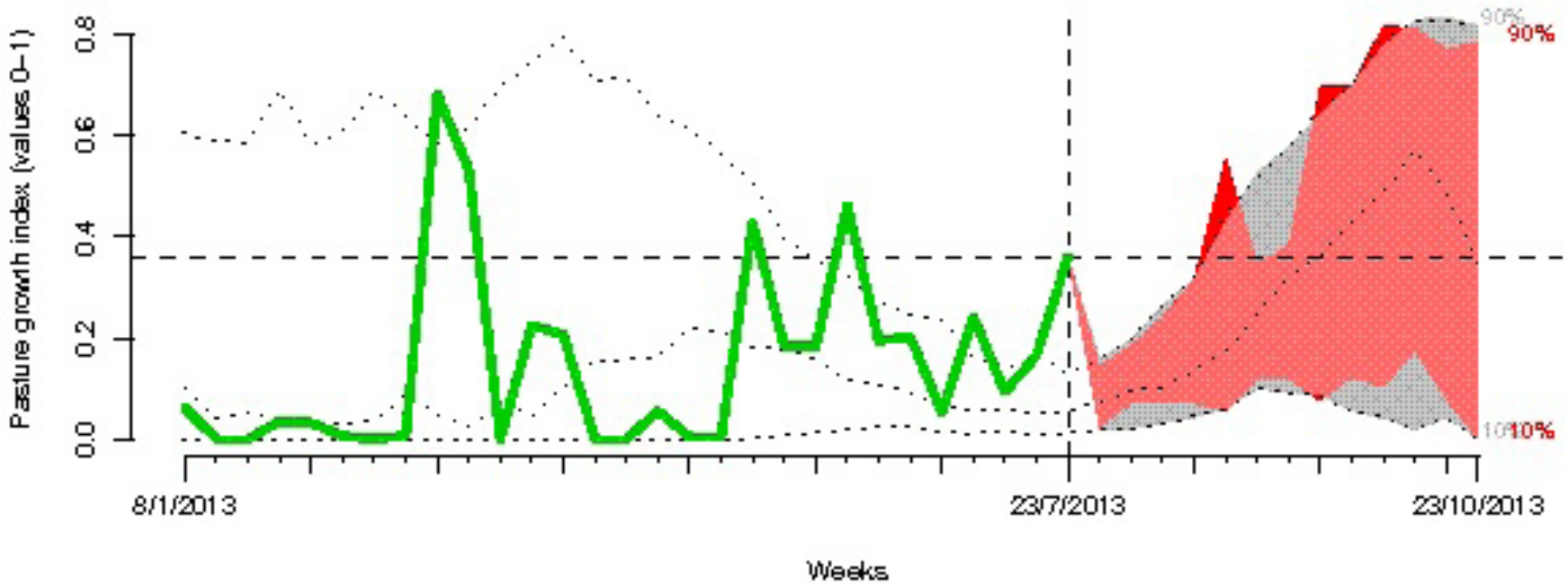
Actual Rainfall to end July **279mm**

Temora Ag Innovation Centre SOIL MOISTURE



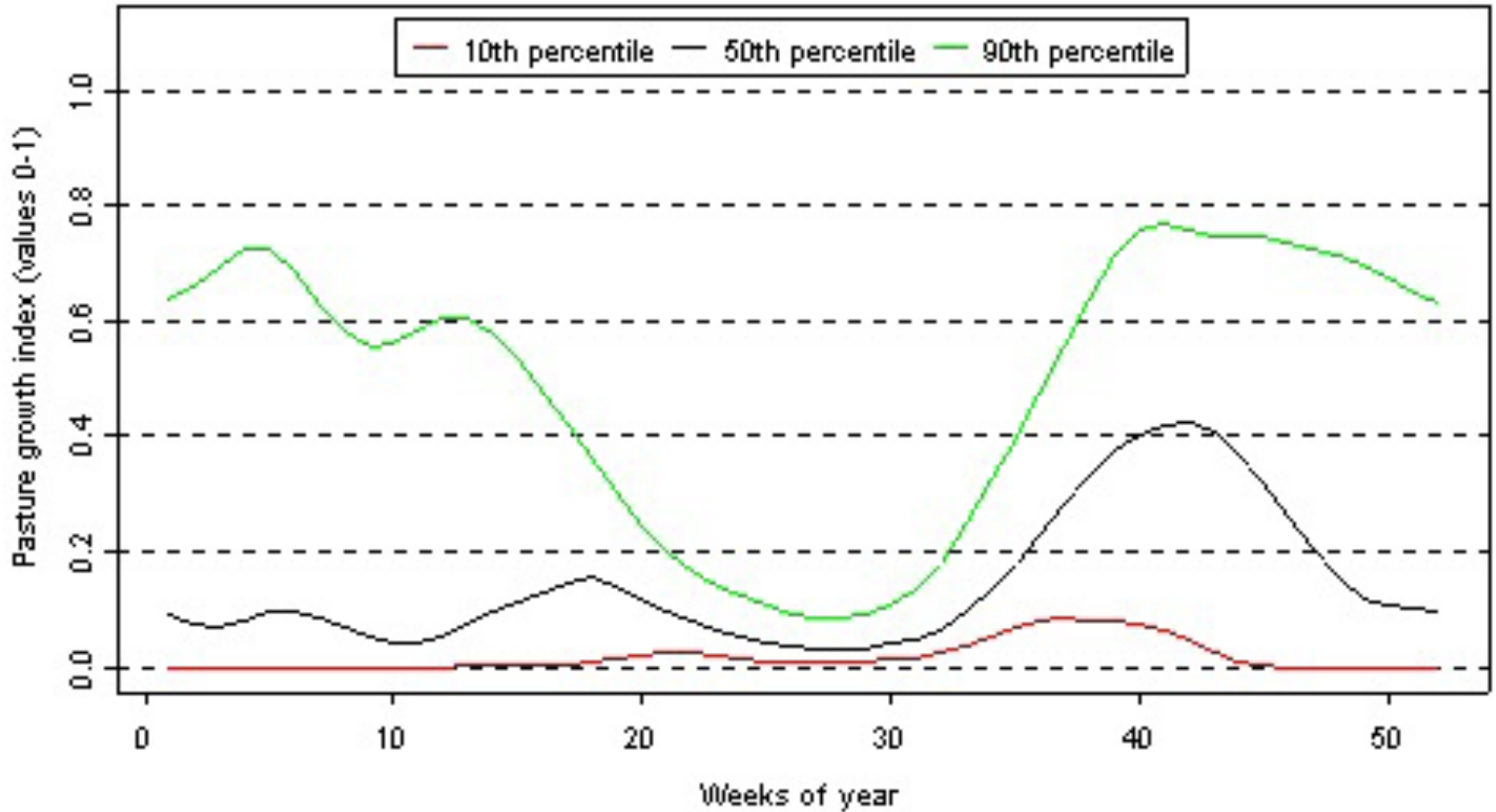
Past years with similar Sea Surface Temperatures at the same time of year:
1906 1912 1934 1945 1959 1977 1996 2001 2008

Temora Ag Innovation Centre PASTURE GROWTH



Past years with similar Sea Surface Temperatures at the same time of year:
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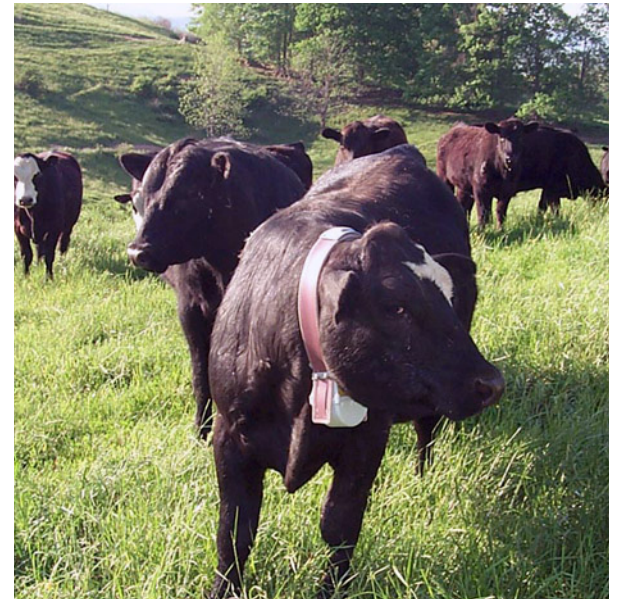
Temora Ag Innovation Centre ANNUAL PASTURE GROWTH



Livestock Monitoring

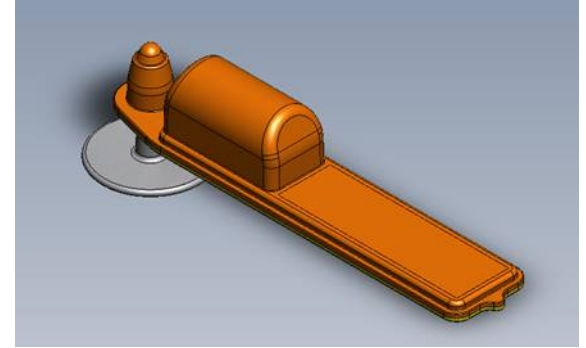
GPS Collars

- \$1000
- Size dictated by battery life
- Currently used primarily in research
- Potential based on improving power source.

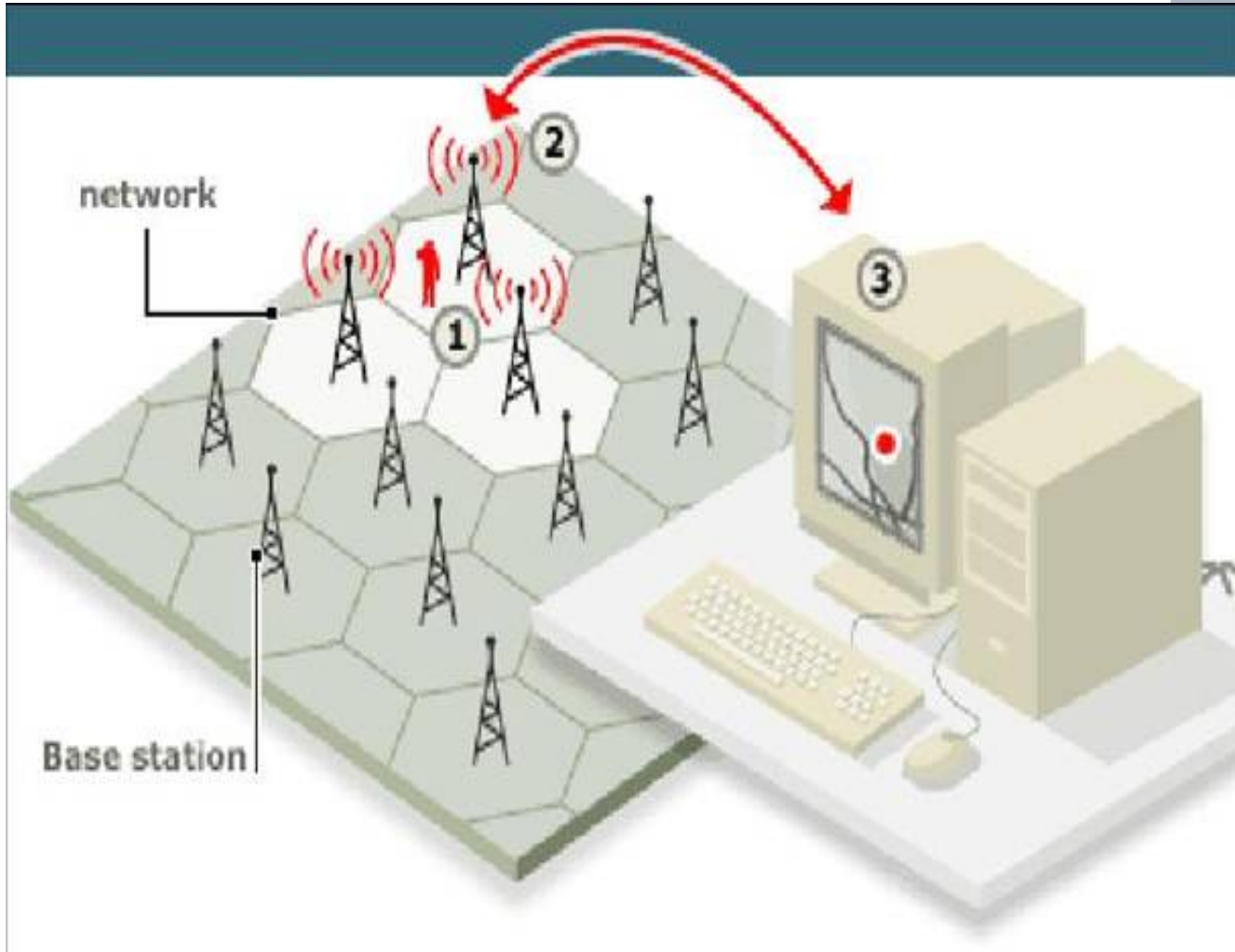
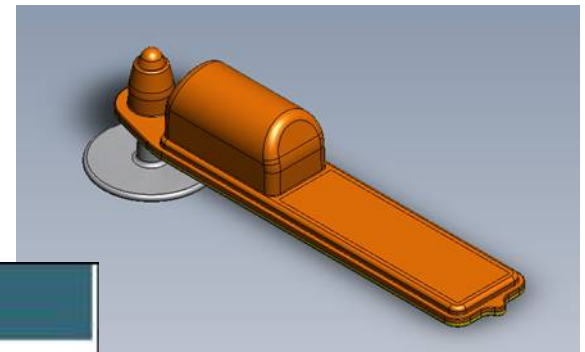


“Taggle” ear tags

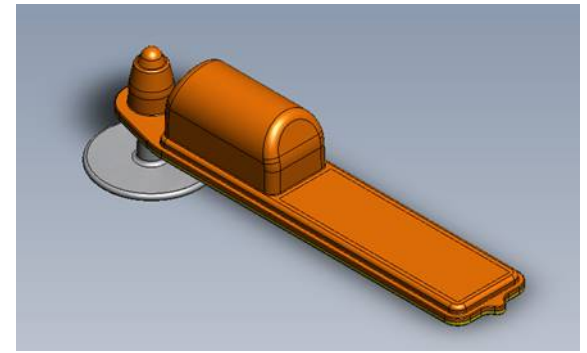
- \$20
- Cheaper than GPS collars
- Apply with NLIS applicator
- Requires towers (min 3) to triangulate position.
- Uptake will depend on tower installation costs coming down.



“Taggle” ear tags



“Taggle” ear tags



- Potential uses:
 - Remote monitoring of stock
 - Improve mustering efficiency
 - SMS alerts for calving, predation, theft
(Based on movement signature of the animals)
 - Using stocking pressure maps to determine position of watering points

Labour / Time Saving

- Walk over weighing/recording
- Remote monitoring of tanks, troughs, feeders and gates
- Remote mustering??
- Robots??

“We still haven’t worked out how to drench 5 sheep at a time”

