Economic Development, Jobs, Transport and Resources

Extending “SafeGauge for Nutrients” to high rainfall cropping in Australia

Kirsten Barlow,
Thabo Thayalakumaran,
Philip Moody

AGRICULTURE VICTORIA

SafeGauge_Grains:

- estimates N inputs, transformations, plant uptake and losses from high rainfall cropping systems on a daily basis
- provides a report on the risk of N export (denitrification, runoff, drainage)
- will be used as part of the training for advisors within the Fertcare Program

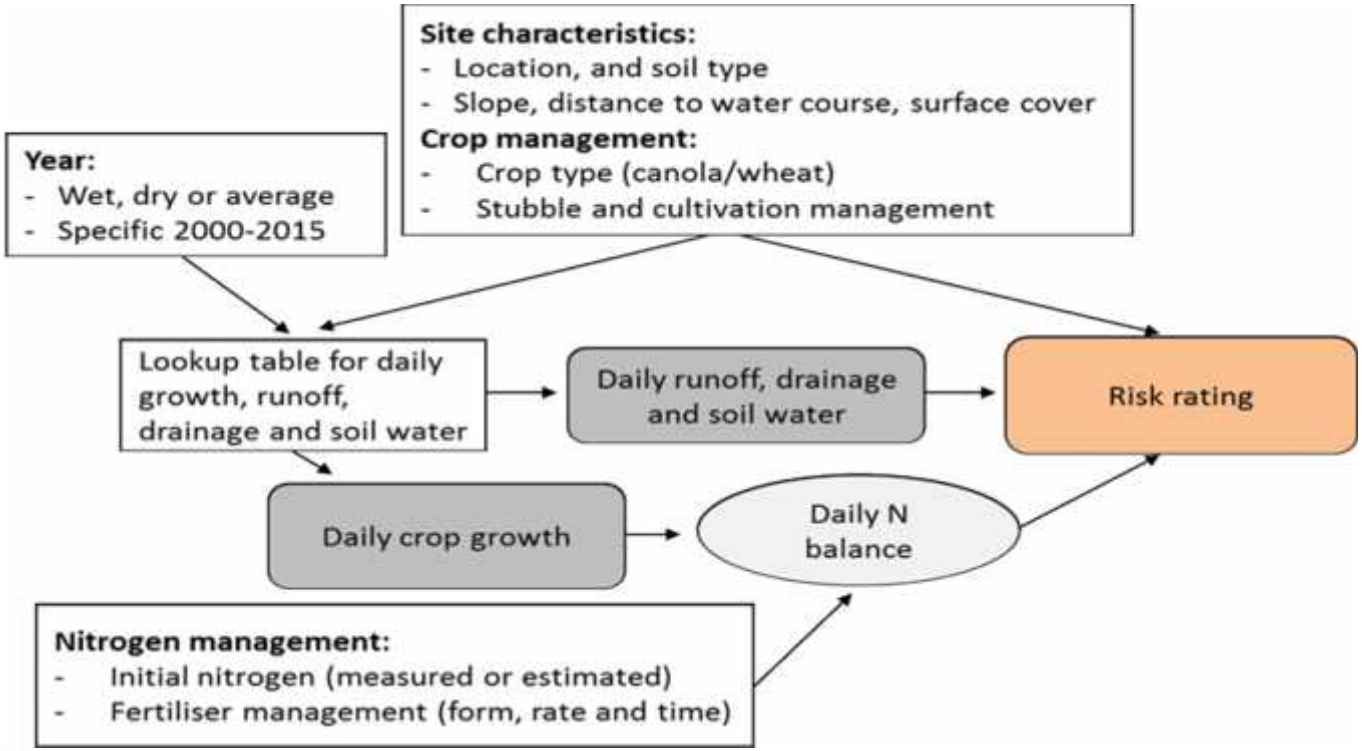


Figure 1. Flow chart of inputs and the risk estimation processes in SafeGauge_Grains: inputs (rectangles), calculations (oval) and outputs (rounded rectangles).

SafeGauge
FOR DAIRY & GRAINS

FERTCARE®

VICTORIA

Economic Development, Jobs, Transport and Resources

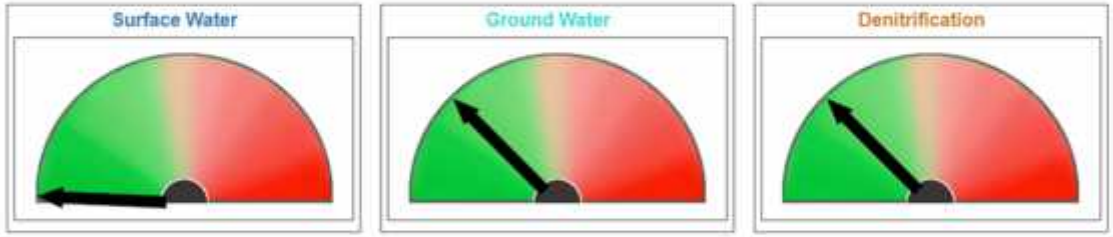
Australian Government

Current assessment (unsaved)

Assessment to compare: N/A

Help

Cumulative number of days when risk conditions are present

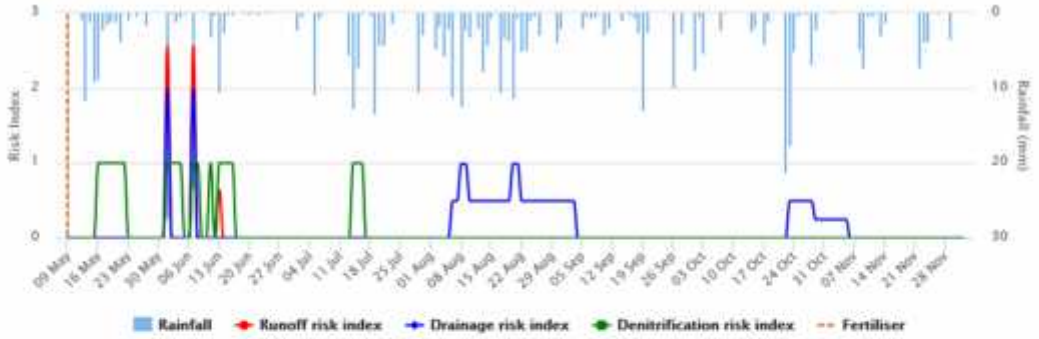


Lower Risk | **Moderate Risk** | **Moderately Low Risk**

Pre-Sowing denitrification risk: Lower Risk

Daily risk assessment (shows how big the risk is)

Base



Nitrogen Summary (numbers are indicative only)

(Unit: kgN/ha)	
Assessment Name	Base
Initial soil N	80-120
Fertiliser applied	9
N_Mineralisation	40-80
N_Crop uptake	80-120
N loss in runoff	5-10
N loss in drainage	10-20
N loss in denitrification	0-2.5
Balance(Inputs-Outputs)	0-40

AGRICULTURE VICTORIA

Figure 2. SafeGauge_Grains Risk Summary Report for a wheat crop grown at Hamilton in 2013.