Package 'rapsimng.decide.cultivar'

November 22, 2026

Title Analyse APSIM Next Generation Simulation Outputs for Cultivar Comparison

Version 0.1.2

Description
Provides functions to analyse Agricultural Production Systems sIMulator ('APSIM') Next Generation simulation outputs to support cultivar-level comparison under specified environments and management assumptions. The package focuses on transparent, reproducible summarisation of model outputs such as yield, phenology timing, and stress exposure, without performing 'APSIM' simulations, interpreting user intent, or making normative recommendations.

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Encoding UTF-8

Depends R (>= 4.1.0)

Imports dplyr, ggplot2, tibble, rlang, stats, knitr, forcats, rapsimng.decide.core (>= 0.1.2)

Suggests here, quarto, testthat (>= 3.0.0)

Config/testthat/edition 3

URL https://cultivar.decide.rapsimng.bangyou.me/, https://github.com/byzheng/rapsimng.decide.cultivar

BugReports https://github.com/byzheng/rapsimng.decide.cultivar/issues

Config/roxygen2/version 8.1.1

NeedsCompilation no

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Repository CRAN

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`document` *Document cultivar suitability from APSIM NG outputs*

Description

Analyse APSIM NG outputs already loaded into R to assess cultivar suitability under a defined environment and sowing window; returns a structured decision report.

Usage

```
document(data, context = list(), criteria = list(), options = list(), ...)
```

Arguments

`data`	data.frame/tibble of APSIM outputs.
`context`	list controlling variable mapping and reporting context.
`criteria`	list controlling decision criteria, including optional risk and filtering thresholds.
`options`	list controlling output toggles and figure behaviour.
`...`	additional values stored in report metadata for downstream use.

Value

A list with class `"rapsimng_decide_report"` containing four named components:

- `meta`: metadata describing the decision context and execution.
- `metrics`: summary metrics produced by the decision workflow.
- `tables`: tabular outputs ready for reporting.
- `figures`: figure objects, specifications, or references for visual output.

`evaluate` *Evaluate cultivar suitability from APSIM NG outputs*

Description

Analyse APSIM NG outputs already loaded into R to assess cultivar suitability under a defined environment and sowing window; returns a structured decision report.

Usage

```
evaluate(data, context = list(), criteria = list(), options = list(), ...)
```

Arguments

`data`	data.frame/tibble of APSIM outputs.
`context`	list controlling variable mapping and reporting context.
`criteria`	list controlling decision criteria, including optional risk and filtering thresholds.
`options`	list controlling output toggles and figure behaviour.
`...`	additional values stored in report metadata for downstream use.

Value

A list with class `"rapsimng_decide_report"` containing four named components:

- `meta`: metadata describing the decision context and execution.
- `metrics`: summary metrics produced by the decision workflow.
- `tables`: tabular outputs ready for reporting.
- `figures`: figure objects, specifications, or references for visual output.

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