

# HowMuch?

Authors: Freebairn, D.M. and Glanville S.F. (1998)

## What is HowMuch?

HowMuch? has been designed to allow for exploration of a range of simple constructs of crop models which use concepts of water use efficiency (WUE) and transpiration use efficiency (TUE). Output is presented to enable the user to build up a picture of climate risk, and explore how this might be managed.

HowMuch? uses a simplified approach to yield prediction based on the French-Shultz model, but is flexible enough to allow for more complex model constructs.

It is an "open box" modelling environment in which growing season rainfall is adjusted by user defined weightings to compare the influence on yield of rainfall at various crop stages.

## Why HowMuch?

HowMuch? provides an introduction to some simple modelling concepts. The principles and application of such a model are transparent, and the user can select the level of complexity they wish. HowMuch? may be a useful introductory tool for people planning to use more physically and biologically explicit models such as APSIM and HowLeaky?.

## Where does it fit in?

Howmuch? is basically a model which has a structure to explore rainfall water supply to crops. It is anticipated that HOWMUCH? will be a tool used by consultants and farmers who have a good feel for values of Water Use Efficiency, and by students being introduced to crop model concepts.



## Typical applications

**With HowMuch? you can explore :**

- ☁ Relationships between planting dates, growth patterns and rainfall patterns.
- ☁ Statistical relationships between associated with yield and rainfall.

The user must have a good understanding of WUE concepts before suitable analyses can be carried out.

## For further information

To download a copy of HowMuch?and for further information go to <http://www.apsru.gov.au/apsru/Documents/products.htm>