

# Agrimod: The Agricultural Modelling Knowledge Hub Website

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**Agrimod is funded by CCAFS**



RESEARCH PROGRAM ON  
**Climate Change,  
Agriculture and  
Food Security**



[www.agrimod.org](http://www.agrimod.org)

# Why another website...?

- What are the current needs for information sharing and developing collaboration within and between research disciplines?
  - Rapid development of collaboration within modelling
  - Increasing demand for positive outcomes based on modelling
  - Need for rapid access to information on models, data, applications, people, funding sources, training .....
- An agricultural modelling knowledge hub website run by the modelling community can help serve as a medium to unify the community and for building better modelling, data and most importantly people capacity.

# Rationale for Agrimod

- Growing need, particularly in developing countries, to address national capabilities for researching agriculture and food security.
- Increasing need to integrate research within and between science disciplines and modelling areas:
  - Through collaboration and improved shared understanding of diverse agriculture related research issues.
- Need for a lasting publically available means of recording information about models and modelling

# How is Agrimod going to work?

- Users can register and become content editors – that means YOU!
- There are three key aspects to Agrimod:
  - Means of finding information
    - ▶ Search tools, maps, inventories etc.
    - ▶ Taxonomy terms to help organise and categorise information
  - Means of providing information
    - ▶ Forms to create content and specify taxonomy of information
  - Means of editing content
    - ▶ Registered users can edit pages
- For the community – by the community: success of the site will depend on the agricultural modelling (and wider research) community providing information and using it.
  - Available in the language of the country it is accessed from.

# Current stage of development

- Still in trial stage
  - Resolving a few technical issues....
  - Linking with MACSUR (Jason)
- Planned open release as soon as possible
  - Announcement and details will be circulated in MACSUR, AgMIP, IEMSS, list servs etc...
- Will need contributions from you....
- Next steps
  - Develop better tools for model comparison

<http://www.agrimod.org/aboutus/about>

[agrimod@hutton.ac.uk](mailto:agrimod@hutton.ac.uk)



Home

Site map

### User account

#### Account information

**Username: \***

Spaces are allowed; punctuation is not allowed except for periods, hyphens, and underscores.

**E-mail address: \***

A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by e-mail.

▾ Location

**Location name:** e.g. a place of business, venue, meeting point

**Street:**

**Additional:**

**City:**

**State/Province:**

**Postal code:**

**Country:**

**Full Name: \***

#### Person Details

**Forename:**

first name: the name that precedes the surname.

**Surname:**

A hereditary name common to all members of a family, as distinct from a given name.

**Organisational Name:**

**Organisational Website Title:**

**Organisational Website URL:**

**Personal Website Title:**

**Personal Website URL:**

#### CAPTCHA

This question is for testing whether you are a human visitor and to prevent automated spam submissions.



**What code is in the image?: \***

Enter the characters shown in the image.

## Create a new account to become a content editor:

- Basic details required
- Details used to create a 'who's who?' record
- You can then add more specific details to your personal page.

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### The Purpose of Agrimod:

Posted on: May 16, 2012



Agrimod serves as a central knowledge hub for information on agricultural modelling activities worldwide. This web-based knowledge hub is the first of its kind, designed specifically to facilitate access to resources and information relevant to agricultural modelling.

The vision is to unite the existing agricultural modelling community by providing a platform whereby models can be showcased, their applications discussed and new collaborations built, streamlining the process by which new model activities are developed. Moreover, Agrimod is intended to be a user-friendly information portal to people in other areas of research or new to agricultural modelling, looking to develop skills and acquire first-hand knowledge on agricultural modelling applications.

### The rationale for Agrimod:



There is a growing need, particularly in developing countries, to address national capabilities for researching agriculture and food security. Research in this area includes the use of mathematical models and computer simulations to better understand how a particular agro-ecological system and the people living within it may respond to any given environmental or management change. Termed 'Agricultural Modelling' this facet of environmental impact, adaption and vulnerability assessment to local, national and global change is acknowledged to be a vital and valuable research tool. To support research in this area we aim to provide a facility that enables users to access the information and data they need in order to more successfully develop and employ agricultural modelling to address key research issues.

### The scope for Agrimod:

Modelling based research within Agrimod covers spatial scales from cells to globe, temporal scales from minutes to decades. There is a limitless coverage of research issues, bounded only by their relevance to agriculture, as the platform is open-ended: details about models, data or case studies can be up-dated; issues or concepts can be raised and discussed. The scope is limited only by the willingness of users to participate.

### For the community and by the community:

Agrimod is a service for the modelling community, and is populated with information by individuals within the community. Registered users can contribute material about models, case studies, data and edit text, write blogs, advertise vacancies etc. Agrimod will provide a lasting repository of details about models, data and case study applications - so please provide details about your research!

### Funding for Agrimod:

Agrimod is funded by the Climate Change, Agriculture and Food Security Challenge Programme (CCAFS).



Search

Enter the terms you wish to search for.



- Home
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- I'm looking for...
- Model Inventory
- Map of Models
- Data
- Case Studies
- People
- Where

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Use the links in this page to access the type of information you are looking for, or alternatively use the Search function, top right of the page:

Posted on: February 9, 2012

- **Models** per type:
  - [Crop](#)
  - [Livestock](#)
  - Economic / trade
  - Soils
  - [Supporting tools](#) / others etc.
- **Data** per type:
  - Crops: experimental data; parameters etc.
  - Crop management
  - Livestock: experimental data; parameters etc.
  - Livestock management
  - Soils
  - Weather - site specific or gridded etc
  - Economic / trade
- **Data Management Systems and Vocabularies** for data sharing:
  - Food and Agriculture Organisation of the United Nations (FAO): [Agricultural Information Management System \(AIMS\)](#)
  - Data recording systems
  - Databases
- [Software tools, development platforms and Supporting tools](#)
- [People](#)
- [Cases of model applications](#)
- [Issues in Modelling](#): discussions on key areas within model development and use.
- [Research Subject](#): discussions on key research areas where modelling has a central role to play.
- [Advice, support and discussion threads](#)
- [Training courses](#)
- [Funding Sources](#)
- [Documentation](#)
- [Organisations](#)
- [Literature](#) (links to [DOI](#) / [ScienceDirect](#) / [Web of Knowledge](#) / [Google Scholar](#) etc).
- [Information about](#): Crop species / Livestock breeds /
- [Work](#) / [scholarships](#) / [PhD's](#) etc.

You can also use the Search function at the top right of this page to search for particular words.



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**Search for other Models Types**

Agent based model

Agricultural Economics and Trade Models

Combined Grass and Livestock Model

Crop Model

Decision Support System


Ecological Systems Model

## Inventory of Models

If your model is not listed, you can enter details [about it here](#):

**Search Terms (i.e. crop to list crop models, livestock to list livestock models etc)**

Apply

**Model Title** 

**Model Description**

<b>AFRC2:</b> Model Types: <a href="#">Crop Model</a>	This wheat model has been developed over a number of years to simulate the growth and development of a wheat crop. The main references are Weir et al. (1984), Porter (1984, 1993), Porter et al. (1993 <a href="#">more info here ...</a> )
<b>AgPasture:</b> Model Types: <a href="#">Grass Model</a>	AgPasture is a pasture growth model developed and integrated in APSIM. It is largely based on the physiological model of Thornley & Johnston (2000) as implemented in SGS/DairyMod/EcoMod (Johnson <a href="#">more info here ...</a> )
<b>APSIM:</b> Model Types: <a href="#">Crop Model</a>	The Agricultural Production Systems Simulator (APSIM) is internationally recognised as a highly advanced simulator of agricultural systems. It contains a suite of <a href="#">more info here ...</a>
<b>APSIM:</b> Model Types: <a href="#">Decision Support System</a>	The Agricultural Production Systems Simulator (APSIM) is internationally recognised as a highly advanced simulator of agricultural systems. It contains a suite of <a href="#">more info here ...</a>
<b>Canegro sugarcane:</b> Model Types: <a href="#">Crop Model</a>	The Canegro sugarcane model (Inman-Bamber, 1991, Singels and Bezuidenhout, 2002) simulates sugarcane crop growth and development from daily weather data, cultivar and soil properties, and management <a href="#">more info here ...</a>
<b>CAPRI:</b> Model Types: <a href="#">Agricultural Economics and Trade Models</a>	CAPRI is a partial equilibrium model for the agricultural sector developed for policy impact assessment of the Common Agricultural Policy and trade policies from global to regional scale with a focus <a href="#">more info here ...</a>
<b>CERES Models:</b> Model Types: <a href="#">Crop Model</a>	The CERES family of models includes: CERES-Maize, CERES-Wheat, CERES-Rice, CERES-Barley, CERES-Sorghum, CERES-Sweetcorn and CERES-Millet. The above models are all available <a href="#">more info here ...</a>
<b>ClimGen:</b> Model Types: <a href="#">Supporting tools</a>	ClimGen is weather data generator model. <a href="#">more info here ...</a>
<b>CropSyst:</b> Model Types: <a href="#">Crop Model</a>	CropSyst (Cropping Systems Simulation Model) is a multi-year, multi-crop, daily time step crop growth simulation model, developed with an emphasis on a friendly user interface, and with a link to GIS <a href="#">more info here ...</a>
<b>CropSyst:</b> Model Types: <a href="#">Soil Models</a>	CropSyst (Cropping Systems Simulation Model) is a multi-year, multi-crop, daily time step crop growth simulation model, developed with an emphasis on a friendly user interface, and with a link to GIS <a href="#">more info here ...</a>
<b>DSSAT:</b> Model Types: <a href="#">Crop Model</a>	Decision Support System for Agrotechnology Transfer (DSSAT) is a software application program that comprises crop simulation models for over 28 crops (as of v4.5). DSSAT is supported by data <a href="#">more info here ...</a>



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Build a GMap macro

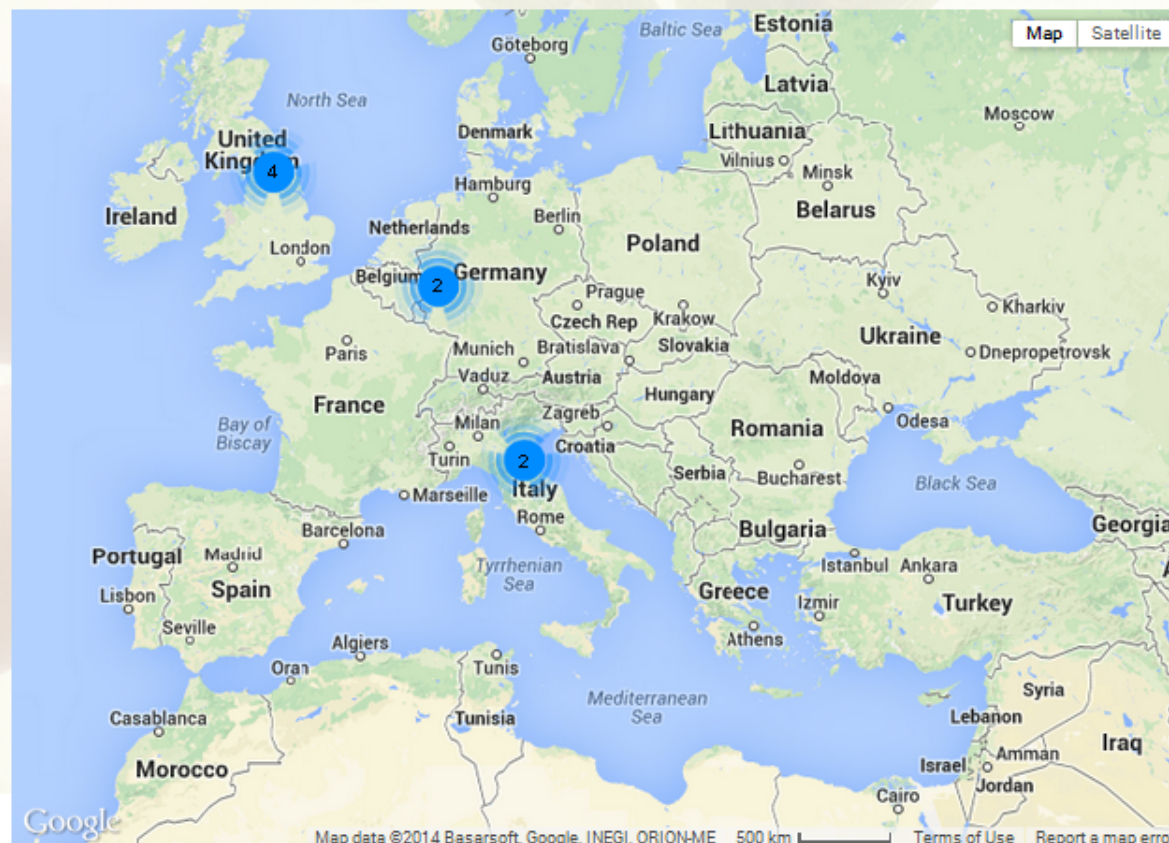
## Location of Models

This page enables you to see the spatial distribution of models per model type. Select from the list below to display the model type you want and then navigate to a location of interest.

### Select Model Type

<Any>

Apply





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## Data

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Data is the essential ingredient for undertaking modelling activities. It is used to enable the creation of models, to calibrate them and then conduct simulations and subsequently test estimates against. As such access to data can be a major limiting factor on the utility of models. Posted on: February 23, 2012

Experimentation data from field trials (i.e. [AgTrials - The Global Agricultural Trial Repository](#) provided by CCAFS)) and other fundamental research activities forms the foundation for providing data to modellers for model development and simulation.

A key purpose of Agrimod is to facilitate access to data (and meta-data) sources. We do not aim to store data itself, instead we provide links to other web sites to help users find the data needed.

It is important for users of this site to ensure they use data appropriately and abide by any licensing requirements of organisation providing data. Users should also undertake their own evaluation of the utility of data that Agrimod links to: improved access does not imply improved data quality.

We seek to encourage sharing of data and knowledge about it within the modelling research community, to help improve model development and utility of simulations. We hope to facilitate a better understanding of data issues such as gaps in data representation and quality and consequences on model use..

Agrimod also provides links to associated data sources from other research disciplines that are likely to be of value to agricultural modelling and the types of research questions modelling is aimed at. [Click HERE](#).

An essential aspect of data is it's quality. Use the Modelling Issues pages to follow discussions on this subject and many others.

Here you can search for data needed for modelling by type:

- [Climate projection data](#)
- [Crop field experimental data](#)
- [Crop genetic](#)
- [Crop management](#)
- [Crop pathogens and diseases](#)
- [Crop physiology](#)
- [Economic](#)
- [Field experiment](#)
- [Generic Data - all types / repository](#)
- [Greenhouse gas emissions](#)
- [Household data](#)
- [Hydrology data](#)
- [Irrigation data](#)
- [Livestock genetic](#)
- [Livestock management](#)
- [Livestock pest and disease data](#)
- [Livestock physiology](#)
- [Questionnaire](#)
- [Soils](#)
- [Survey data](#)
- [Weather](#)
- [Weather generator data](#)
- [Yield data](#)





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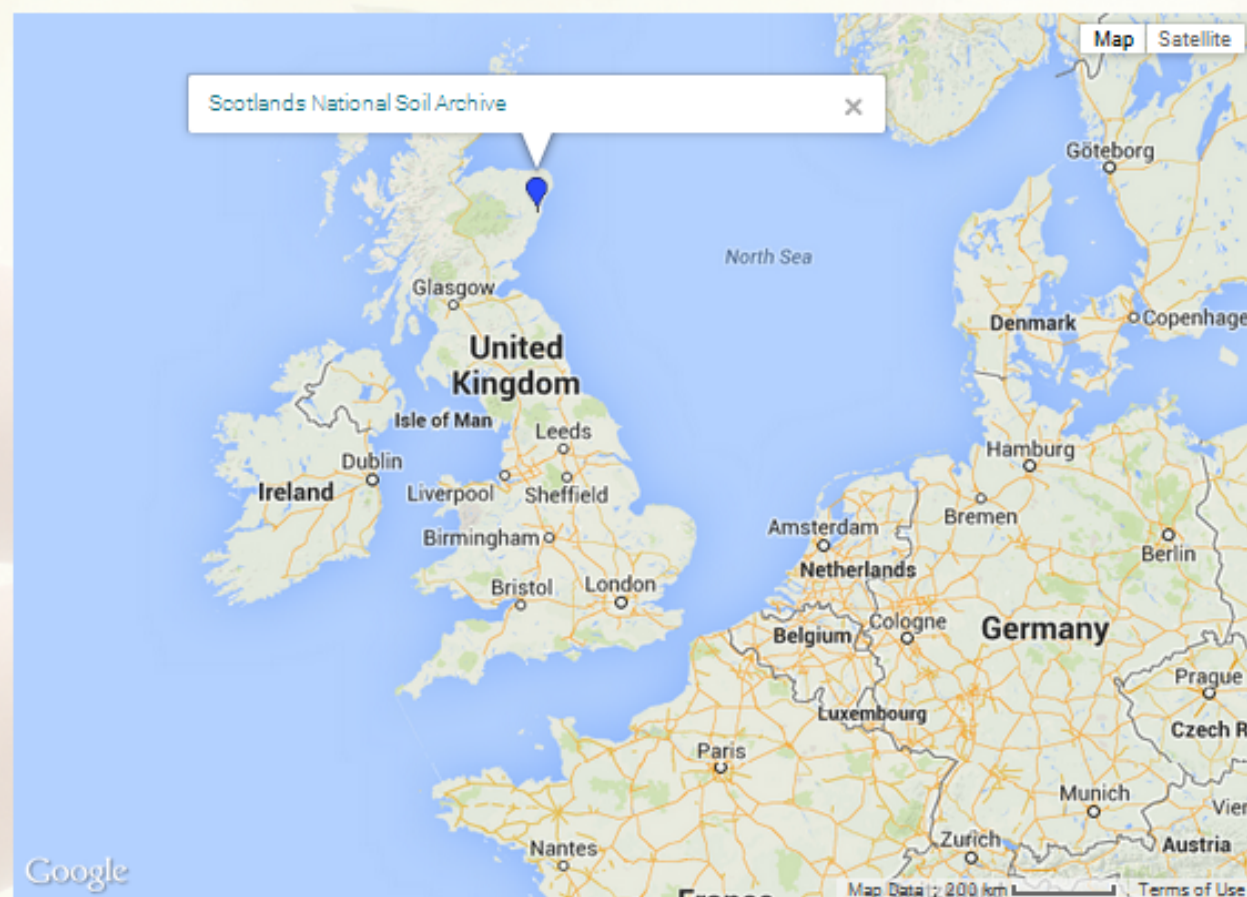
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## Location of Data

This page enables you to see the spatial distribution of Data





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## Case Study locations

The map below shows the locations of the case study sites, where these are available.

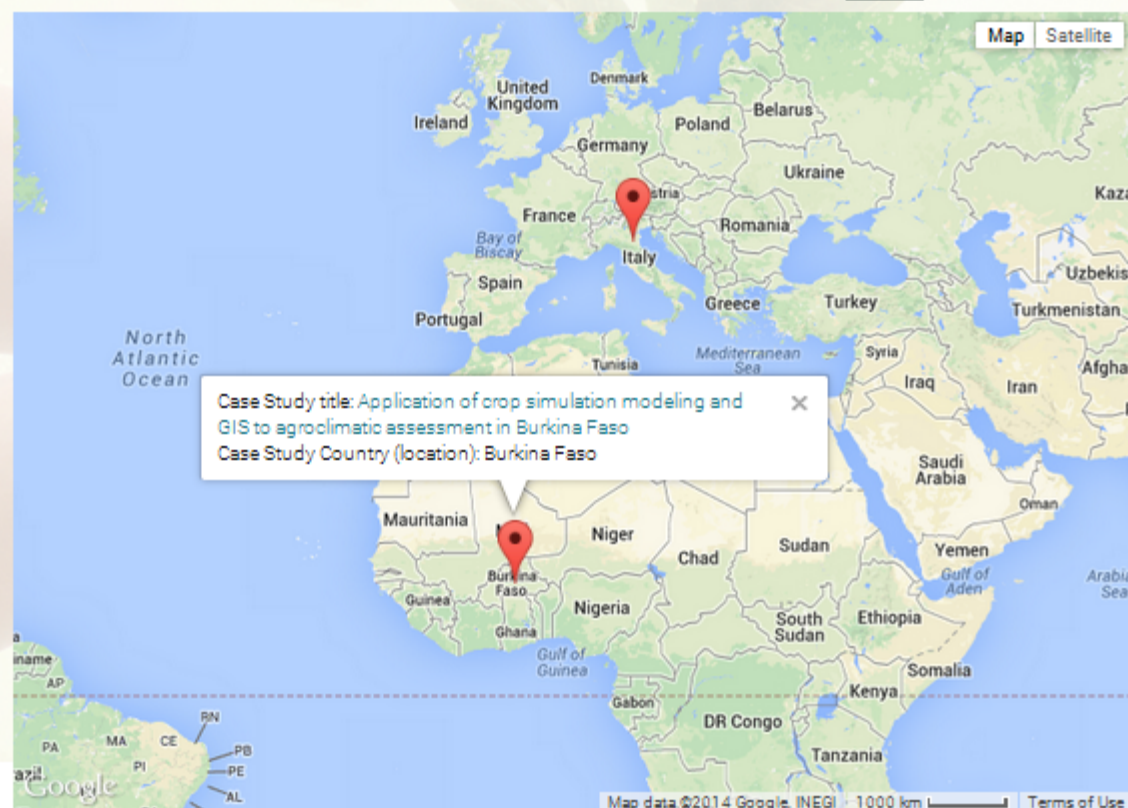
If your case study is not listed, you can enter details [about it here](#):

**Search by country**

<Any>

**Search: Search Terms**

Apply



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## Who is who

This page show the locations of researchers who have been involved in the creation and development of the models on this site.

### Location: Country

Is    
<Any>



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## Create Model

Please enter details about a model here. **HINT:** we suggest that you use the search facility in the [Model Inventory](#) to see if details about your model have already been entered in Agrimod. If so, you can edit details directly on the models' page.

### Instructions:

1. Provide a name for the model, then in the large text box below provide as much detail about the model as you want. You can cut and paste from other sources. You can use the text editing options at the top of the box to format your details.
2. Use the maps below to place a pin to indicate where the model has been **applied**. You can either provide latitude and longitude coordinates or click on the map where you want the pin to appear. You can zoom in and move the pin to be more precise about locating it. You can also use the Search option to find a location - type in the name of the place and search.
3. Below the model description text box are several menus: Vocabulary; Model Information (in light blue boxes) that enable you to set the taxonomic terms for the model (**this is very important as these are searchable terms**), provide links to model websites; link to papers and documentation etc.
4. Vocabulary: Select from the list of Model types; Modelling issues that the model relates to; Crop or Livestock types; and data types. You can use the Ctrl key to point and click to select multiple options. For crops, type in the name of the crop and select from the drop down list, enter a comma and type again for multiple crops.
5. Model Information: Provide a title for a link to your model, and the website addresses (URL). For journal papers, enter the title of the paper and the Digital Object Identifier - DOI (for info about DOI go to [www.doi.org](http://www.doi.org)).

### Model Name: \*

Show summary in full view

### Description:

Source

Format

**B** *I* U **ab+**  $x_2$   $x^2$

**Locations**

Location #1

**Vocabularies**

No terms

**Location name:** e.g. a place of business, venue, meeting point

**Model Information**

**Country:**

**Additional Model Details**

**Menu settings**  
Not in menu

**Revision information**  
New revision

**Authoring information**  
By mike.rivington

**Publishing options**  
Published

**URL path settings**  
Automatic alias

**Comment settings**  
Disabled



**Latitude:**

**Longitude:**

**Locations****Vocabularies**

No terms

**Model****Information****Additional****Model Details****Menu settings**

Not in menu

**Revision****information**

New revision

**Authoring****information**

By mike.rivington

**Publishing****options**

Published

**URL path****settings**

Automatic alias

**Comment****settings**

Disabled

**Model Types:**

Please use the Control key to select multiple options

- None -
- Agent based model
- Agricultural Economics and Trade Models
- Bio-economic Models
- Combined Grass and Livestock Model
- Crop Model
- Decision Support System
- Ecological Systems Model
- Game simulation

**Modelling Issues:**Please select a model issue(s) you are describing. Use the Ctrl key to select multiple options. To suggest new taxonomic terms, email [New taxonomic term](#)

- None -
- Calibration
- Climate change adaptation
- Climate change impacts
- Climate change mitigation
- Crop response to CO2
- Crop response to ozone
- Crop responses to temperature
- Crop responses to temperature, water and CO2

**Livestock type:**Please select the livestock type(s) you are describing. Use the Ctrl key to select multiple options. To suggest new taxonomic terms, email [New taxonomic term](#)

- None -
- Beef cattle
- Buffalo
- Chicken
- Dairy cattle
- Deer
- Duck
- Fowl all types
- Goats

**Case Study Type:**

Please select which case study type that describes the information you are providing. Use the Ctrl key to select multiple options.

- None -
- Biofuels
- Climate change impacts, mitigation or adaptation study
- Combined grass and livestock model application / project
- Crop model application / project
- Decision Support System application
- Ecological systems model application / project
- Economics or Trade model application / project
- Grass model application / project

**Crop Types:**Type the name of the crop, select from the list, then enter a comma and repeat for as many crops as you want. If a taxonomic terms does not appear that you want, request it to be added by using [new taxonomic term](#)**Agriculture product type:**Please select the term that best describes the agricultural product. To suggest new taxonomic terms, email [New taxonomic term](#)

**Locations****Vocabularies**

No terms

**Model Information****Additional Model Details****Menu settings**

Not in menu

**Revision information**

New revision

**Authoring information**

By mike.rivington

**Publishing options**

Published

**URL path settings**

Automatic alias

**Comment settings**

Disabled

**Model website Title:****Model website URL:****Further model websites Title:****Further model websites URL:**

Please add further URLs for this model

**Published Papers:**

Please provide the title of the publication in the first box (required) and the DOI number (example: 10.1051/agro/2009001) in the second. This will provide a link on the model page to the publication without contravening copyright.

**Title:****URL:**

+

**Title:****URL:**

+

**Other Publications:**

Please upload Non-copyright publications here. These may include open access reports, presentations with slides, PDFs of posters etc. Please provide a title for the publication, browse for the relevant file and upload. **NO NOT UPLOAD PUBLISHED JOURNAL PAPERS USING THIS OPTION AS THIS MAY CONTRAVENE COPYRIGHT. INSTEAD use the DOI submission option above to provide links to journal papers and other copyright protected documents or data with a DOI.**

Maximum file size: 8 MB

Allowed extensions: txt pdf html xml doc docx ppt pptx

No file selected.

+

**Related Case Studies:**

+

+

**User Manual/Documentation:**

Maximum file size: 8 MB

Allowed extensions: txt pdf doc docx xls xlsx

No file selected.

+