NeoSOFT®

Case Studies

AGRICULTURE & BIOSCIENCE

Selected Clientele

Data Management System

Improved operational excellence by 84%

Read More →

CASE STUDY

Data Management System

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Home

Client Background

Our client is a not-for-profit organization with key partners working in over 40 countries. The firm implements scientific expertise and knowledge to address agricultural and environmental issues globally.

Their prime emphasis is on uplifting climate change and biodiversity, gender and youth, food and nutrition security, and economic development.

Location: **United Kingdom**

Industry: **Agriculture & Bioscience**

Project Overview

An end-to-end data management system that enables users to gain a 360-degree view of enterprise data and make smart agricultural decisions. The advanced system streamlines vast amounts of crop/pest data and ensures exhaustive data automation throughout the business lifecycle.

Type: **Web Portal**

Team Size: **3**

Project Duration: **1 Year**

Problem Statement

The client's business is heavily reliant on pest/crop data generated from multiple systems.

Dealing with such voluminous data, having a centralized data model for siloed data operations was an absolute must for them.

Another challenge was the language barrier which demanded a language translation functionality.

The prime need derived was to have a unified data management system that garners actionable insights on the pest/crop data landscape.

Our Robust Solution

We proposed a sound data management strategy to pull as-is data from different systems and streamline the entire data lifecycle in one place.

Leveraging a mix of data management best practices helped users gain an actionable decision-fueling vision. The advanced system gathers and shares real-time information on crop health and ensures utmost food security.

The advanced translation feature addresses the language translation issue and enables the users to view crop/pest data in the preferred language.

Backed by product translation functionality, the system helps farmers to replace chemical pesticides and adopt biological products.

Data Management System

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Technical Challenges

Implementing translations based on different language selections was one of the major challenges we faced.

To overcome this, we created custom controls and leveraged local and English variants, we represented the translation for selected/ pre-populated fields for any product details.

Another challenge was maintaining crop/pest data with broader-narrower, and alternate crop/pest terms.

We added 3 different variants on the ML side to: Local, English, and ALT terms for each broader/ narrower and alternate term. We even created a custom tree view structure using jQuery plugins to address this issue.

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Key Features

1 Streamlined crop/pest data management for the entire CABI product lifecycle.

2 Language-based translation functionality to add alternate, broader-narrower terms for crop/pest data.

3 Data migration where users can upload excel files with bulk data.

4 Customized country-wise translation functionality.

Business Impact

Robust data governance

Consolidated view of thorough business data

Operational excellence

Streamlined data management

Data consistency & integrity

Informed decision-making

Enterprise data transparency

Version
.NET 5

Language
C#

Dependency Injection
.NET Core

Logging
Serilog-Seq

Testing Framework
xUnit

Authentication
Google OAuth

Frontend Libraries & Frameworks
Bootstrap

Font Awesome

jQuery

Databases
MarkLogic
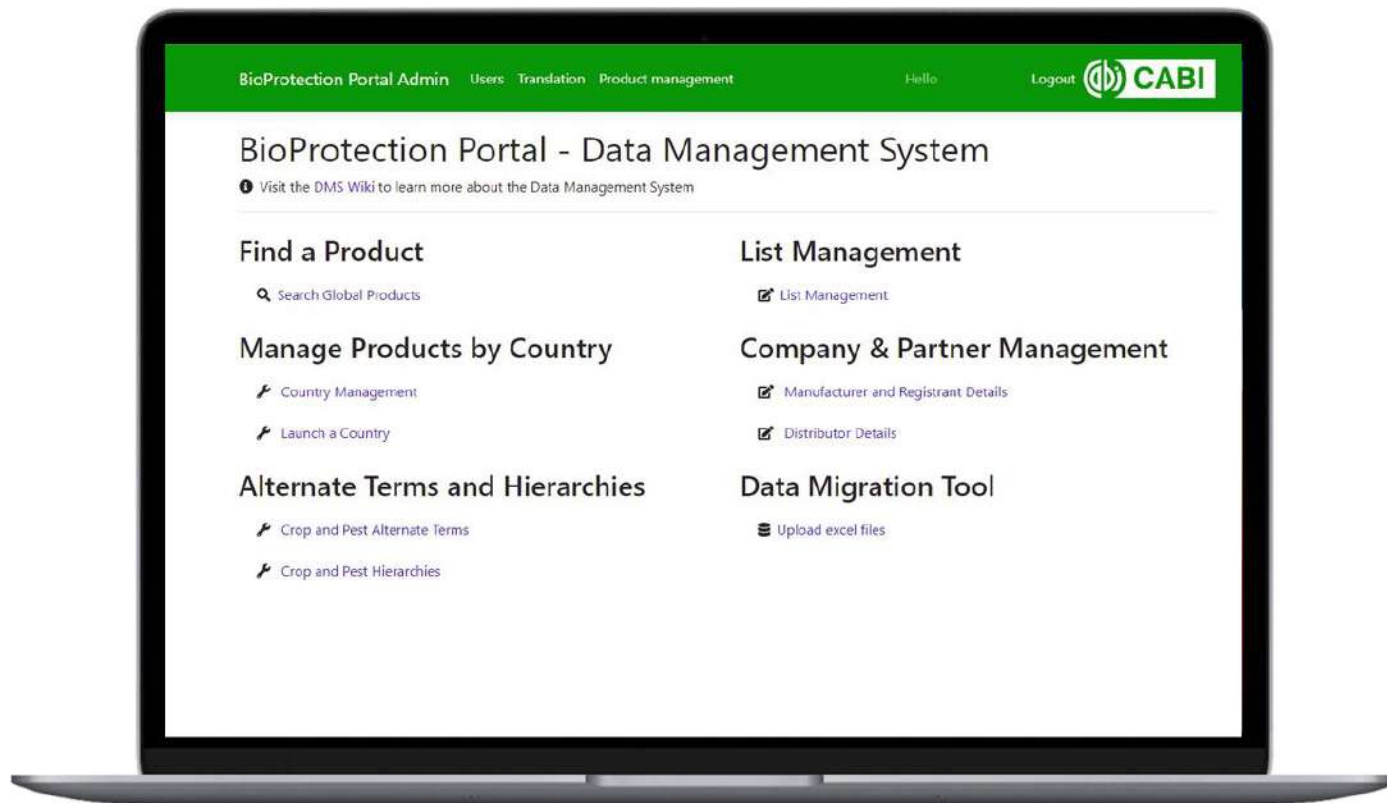
BioProtection
Data Migration

Dependencies
GemBox

CABI API
BioProtection
PortalAdmin.Api

BioProtection Portal Admin   Users   Translation   Product management   Hello   Logout CABI

BioProtection Portal - Data Management System

ⓘ Visit the DMS Wiki to learn more about the Data Management System

Find a Product

🔍 Search Global Products

Manage Products by Country

🔧 Country Management

🔧 Launch a Country

Alternate Terms and Hierarchies

🔧 Crop and Pest Alternate Terms

🔧 Crop and Pest Hierarchies

List Management

☑ List Management

Company & Partner Management

☑ Manufacturer and Registrant Details

☑ Distributor Details

Data Migration Tool

⬆ Upload excel files

BioProtection Portal Admin   Users Translation Product management   Hello   Logout CABI

Search Global Products

Product name: Achook   🔍

There are 1 product(s) with similar names:

Product name	Active Integredient	Country Use Records
Achook	• Azadirachtin	Kenya

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Achook

| **Basic Information** | **Enhanced Information** | **Country Use Records** |

Available Languages:

English (EN) ▼   Add new language

Product URI:

https://id.cabi.org/biop/product/82172336

Product name:

Achook

Active ingredient:

Search...

(3S,6R)-3-methyl-6-isopropenyl-9-decen-1-yl acetate(0,041%)	Azadirachtin
(3S,6S)-3-methyl-6-isopropenyl-9-decen-1-yl acetate(0,025%)	

⊕ Add new

⊞ Save changes to basic product information

BioProtection Portal Admin   Users   Translation   Product management   Hello   Logout   CABI

Data migration

1

Download the template and add your data to it.

DMS Migration Template   ⓘ

2

Select excel file to migrate into DMS:

Choose File   No file chosen

Upload File

Edit Authorized Use ×

Crop/pest data

Crops

Pests

✔ Check entries

✔ Check entries

🖫 Save crop/pest data

Close
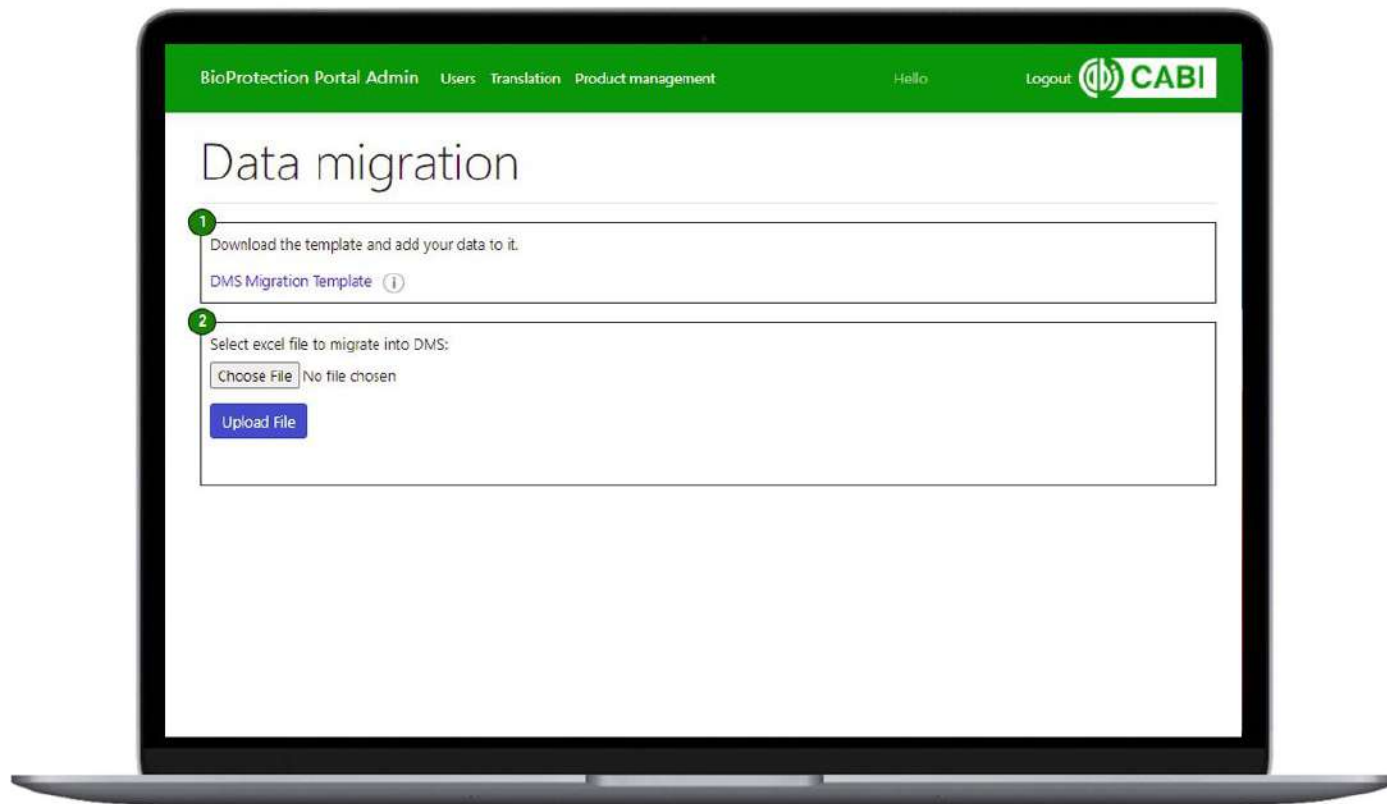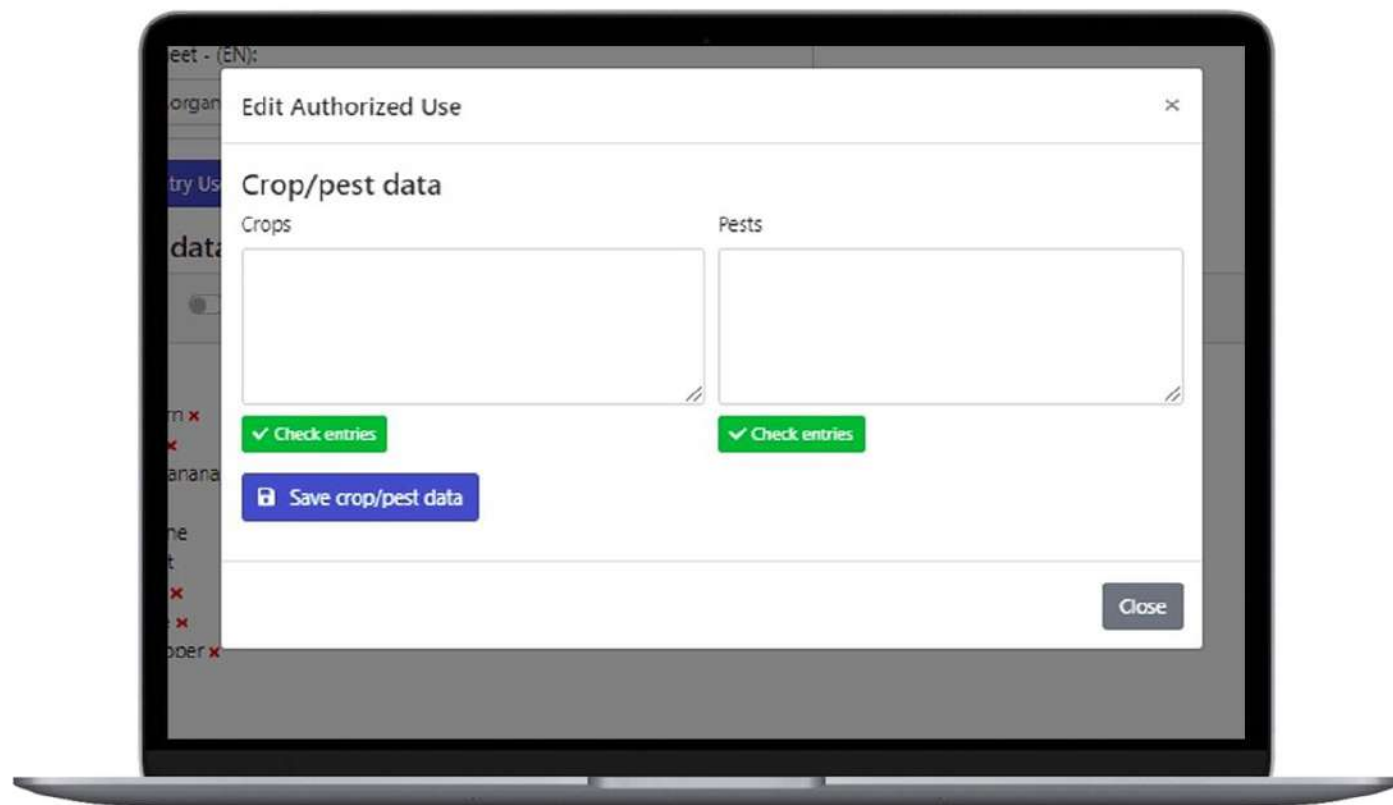
Country management

🔄 Refresh

Show [50 ▼] entries

Product Name	Country Use (Country & Language)	Associated Companies	Status	Last Updated By	Last Updated Date
Search Product N	Search Cou	Search Associated Companies		Search L	Search L
Test Product 02	Christmas Island (ES)		Draft	Kumar Kartik	20/10/2021
Test Product	Christmas Island (ES)	Manufacturer : Chemie Distributor : dist test, shubhamtest1	Edited	Kumar Kartik	20/10/2021
Test Product	Cocos Islands (EN)	Manufacturer : Chemie	Edited	Kumar Kartik	20/10/2021
test lang kartik	France (FR)		Edited	Kumar Kartik	20/10/2021
Test Productt1	Cocos Islands (EN)		Edited	Kumar Kartik	07/09/2021

BioProtection Portal Admin   Users   Translation   Product management   Hello   Logout CABI

Distributor Management Details

Show 50 entries

Distributor Name	Is Partner?	Address Line 1	City	Country
Search Distributor Name		Search Address Line 1	Search City	Search Cou
Agrichem	no	Pza. de Castilla	Madrid	Spain
Agrimat	no			Ghana
Agrobío	no	Carretera Nacional 340	Almeria	Spain
Anatis Bioprotection	yes	278 Rang Saint-André	Saint-Jacques-le-Mineur	Canada
Andermatt Biocontrol UK	no	43 Hove Park Road,	East Sussex,	United Kingdom
Applied Bio-nomics	yes	11074 W Saanich Rd	BC	Canada
BASF Chile	no			Chile
Bayer	no			Colombia
Bayer East Africa	no			Kenya
Bio Controle - Métodos de Controle de Pragas	no	R. Ema Gazzi Magnusson,	Indaiatuba - SP - CEP 13347 630	Brazil
Bio Insumos Nativa	yes	Parcela Antilhue Lote 4 B2	Maule	Chile

Manufacturer and Registrant Details

Show 50 entries

Company Name	Is Partner?	Translations associated
Search Company Name		
151 Products	no	EN
4260864 Canada Inc	no	EN,FR
753146 Ab Ltd. O/A Ultrasol Industries	no	EN,FR
9272-9771 Quebec	no	EN,FR
A to Z Drying	no	EN,ES
Aako B.V	no	EN,FR
Aberdeen Road Company D/B/A Hercon Environmental	no	EN,FR
Abonos Superior	no	EN,ES
Abonosos Superior	no	EN,ES
Absorbent Products	no	EN,FR

BioProtection Portal Admin   Users   Translation   Product management   Hello   Logout ((•)) CABI

Manage Alternative Crop and Pest Terms

Language

English (EN)   Crops 🔘 Pests

Crop Alternative Terms

- Apple ✕
- Orange ✕
- Lemon ✕

Add New

- Crab apple ✕

Add New

- Brinjal ✕
- Aubergine ✕
- Eggplant ✕

Add New

- Shade bananas ✕
- Banana ✕

Data Management System | **Our Work**

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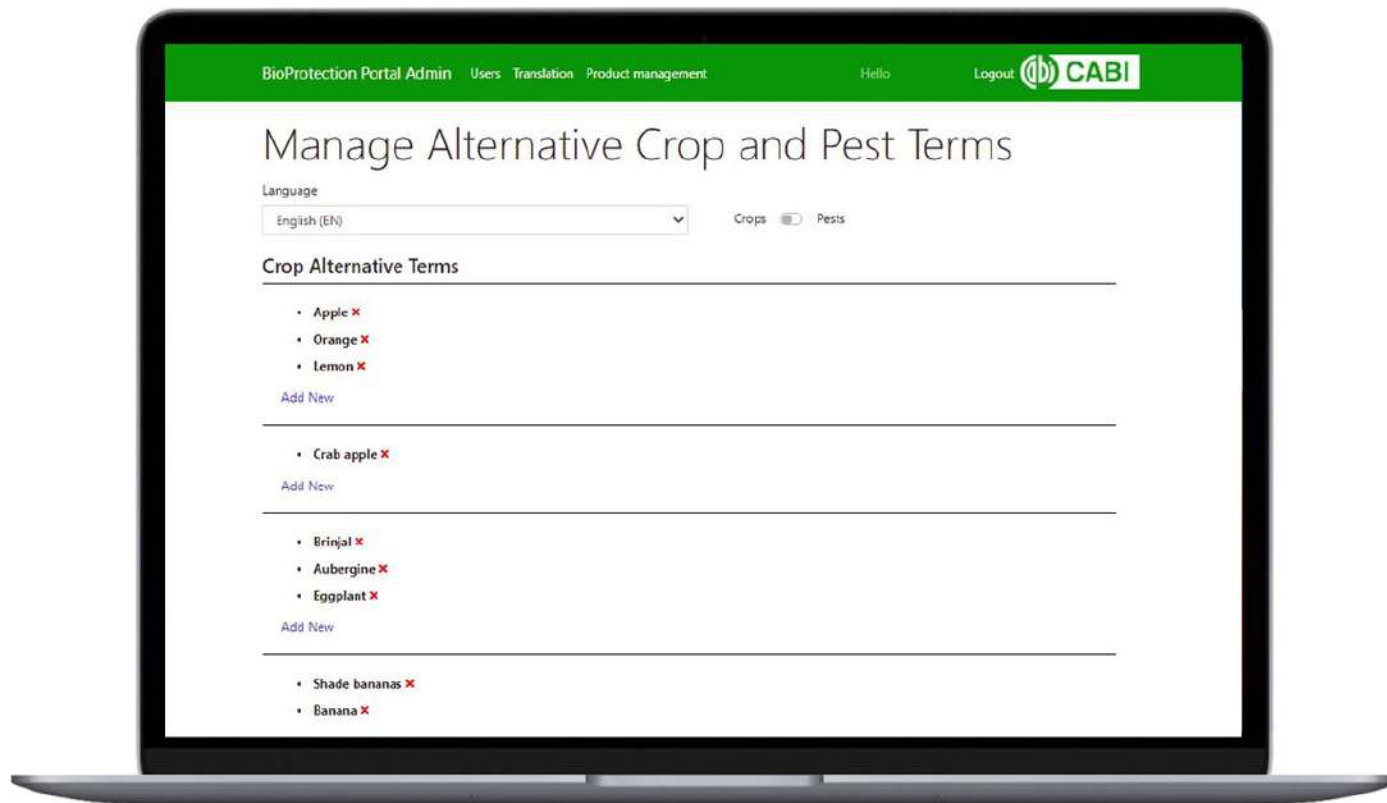
Manage Broader Term Groupings

Language

English (EN)

Crops ⬤ Pests

Existing Groupings   [Create a new grouping]

- 🍃 african palm ✕
  - + Add new
- 🍃 citrus ✕
  - ↪ tangelo ✕
  - ↪ pomelo ✕
  - ↪ orange tree ✕
  - ↪ orange ✕
  - ↪ mandarin ✕
  - ↪ lime ✕
  - ↪ lemon ✕
  - ↪ grapefruit ✕
  - ↪ clementine ✕
  - ↪ citron ✕
  - ↪ bitter orange ✕
  - + Add new
- 🍃 cucurbits with edible skin ✕
  - ↪ zucchini ✕
  - ↪ squash ✕
  - ↪ pumpkin ✕
  - + Add new
- 🍃 cucurbits with inedible skin ✕
  - ↪ zucchini ✕
  - ↪ winter squash ✕
  - ↪ pumpkin ✕

THANK YOU!

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