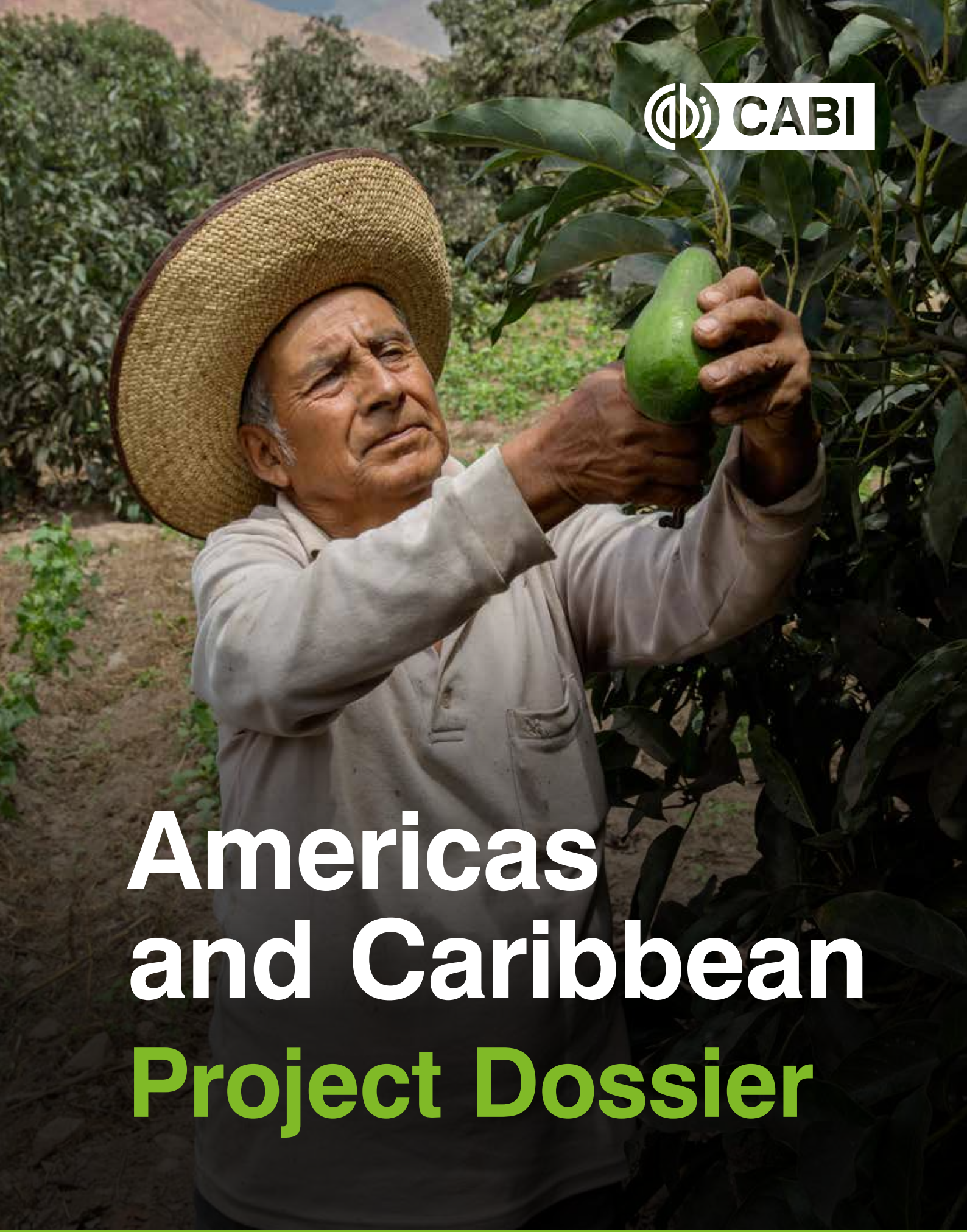

Americas and Caribbean Project Dossier

KNOWLEDGE FOR LIFE

PROJECTS BY COUNTRY

Peru

Trinidad & Tobago

United States of America

PRIORITY AREAS FROM REGIONAL CONSULTATIONS IN 2012-2013

With our member countries, we identified and agreed on seven priority areas at the Regional Consultations in 2012/13, reflecting member countries' needs, CABI's capabilities and donors' focuses.

This document summarizes CABI's projects, programmes and initiatives which address these seven priority areas.

1 Trade and market access and development

2 Knowledge management, communication and use

3 Plant health

4 Biodiversity and invasive species management

5 Climate smart agriculture

6 Institutional capacity building

7 Publication of, and access to, authoritative information resources

These may change in 2015/16.

1

Trade and market access and development

SPS compliance; Value-chain focus and postharvest value-addition; GAP and best practices promulgation, and capacity building; Commercialization and contract farming.

Demand for commodities such as cocoa, coffee and tea may outstrip supply as soon as 2020 unless we improve crop production and reduce wastage. By better integrating the world's smallholder farmers into supply chains a shortfall can be avoided. CABI builds expertise and capacity along supply chains to increase food security and food safety and improve prosperity for all.

Harnessing the power of agricultural trade is a highly effective way to secure a supply of safe, high quality produce for the future. Trade is an engine for economic growth in producing countries, helping to alleviate poverty by improving farmer's livelihoods.

However, developing countries that attempt to engage in world trade face many barriers. Pests and diseases can destroy crops in farmer's fields, or post-harvest losses can occur due to inadequate storage conditions. Poor production and processing techniques can result in food that fails to comply with SPS (Sanitary and Phytosanitary) standards so export to lucrative markets is barred.

We promote Good Agricultural Practices (or GAP) and train farmers to use these methods. This ensures that farmers grow plenty of healthy crops, and we work along the value chain to ensure commodity crops are traded safely and efficiently.

2

Knowledge management, communication and use

Technology transfer (particularly amongst member countries, and south-south); Sharing knowledge amongst stakeholder groups including youth and grassroots (Facebook Agriculture); Mobile advisory services; Improving communications to farmers; Evidence-based policies. Archiving and managing institutional research information.

At CABI, we know the most effective way of addressing important agricultural and environmental issues and improving people's lives is to facilitate sharing of scientific information, providing advice and building capacity. Smallholder farmers, extension workers, researchers and policymakers can all suffer from lack of information, capacity and skills.

Managing knowledge is therefore critical and is a core activity for CABI's dedicated team of content development editors, researchers and scientists. We give users access to accurate, timely and relevant knowledge on agricultural and environmental science information, and exploit the latest technologies and search algorithms to give us a global reach. We work closely with user groups to optimize our reach and impact, and identify both knowledge management needs and appropriate communication channels.

As part of our work, we also help facilitate technology transfer from one country to another, where good methods of growing better crops exists, especially amongst member countries and encouraging South-South Cooperation. We try to work with hard to reach communities including youth and women's groups.

3

Plant health

Managing a range of stressors including pests (IPM), water, and soil nutrients; IPM in high value crops; reduction in pesticide inputs; early warning systems for newly emerged/key pests & diseases.

At CABI, much of our work is about plant health. We focus on supporting smallholder farmers and improving their crop yields, tackling pests and diseases and finding alternatives to pesticides.

By promoting integrated solutions, we improve access to better seeds and planting materials, encourage efficient and effective use of mineral fertilizer and organic inputs, combined with good agricultural practices.

We introduce and pioneer good crop production technologies, such as Integrated Pest Management (IPM), provide training throughout the value chain and build local, national and regional capacity. We also improve access to knowledge and information to support crop management to raise crop productivity. For instance, we support the improvement of soil and seed health leading to healthy plants and a good yield, affecting food security, income and livelihoods.

4

Biodiversity and invasive species management

Invasive management; Capacity building of IS identification and diagnostics; habitat manipulation/agro-biodiversity enrichment.

Microbial resource collection, characterization and utilization; Development and production of biopesticides, and implications of biopesticides use.

Invasive species, such as weeds, animals and microorganisms are a major livelihoods issue. They are also threatening biodiversity: invasive species cause economic losses, threaten crop and pasture production and impact on human health.

All around the world, millions of people living in rural communities face similar problems with weeds, insects, plant diseases and animals which are out of control and are threatening their livelihoods. Many of the species that cause problems are non-native, so we focus on helping to manage these.

Through our work we help to diagnose, characterize and advise on plant health problems. Importantly, we manage a unique collection of over 28,000 living strains. Here, we store and utilize environmental and agricultural microbes from around the world, including; filamentous fungi and yeasts, plant pathogenic bacteria, including extremophiles, metabolite producing strains, biological control agents and many more.

To support agriculture, we develop biopesticides which don't damage the surrounding environment but help farmers, and those who store and transport crops, manage pests in a sustainable way.

5

Climate smart agriculture

Climate-smart agriculture combines the interlinked challenges of food security and climate change.

Many of our projects relate to this issue and have been included previously. They include: Good seed initiative, Development communications; Plantwise; Integrated pest management; Integrated crop management; Invasive species management; Environment and health.

To feed the world, we need to increase agricultural production and limit waste and climate change will make this harder. With resources for sustainable food security already stretched, the challenges are huge. At the same time climate change is already negatively impacting agricultural production globally and locally. Responding to these challenges in agriculture is critical, especially by developing nations, which are often in the warmest parts of the world, as they must undergo a significant transformation.

Studies show that climate change is likely to reduce agricultural productivity, stability and incomes in some areas, many of which are already experiencing other problems.

Climate-smart agriculture promotes ways to produce crops more sustainably, mitigate the effects and help farmers adapt to a changing climate.

6

Institutional capacity building

Institutional capacity building aims to enhance the capacity of governments, business, non-governmental groups and communities to plan and manage their resources and environment efficiently and effectively. Many of our projects relate to this issue and have been included previously. They include: Market access/value chain support; SPS compliance and capacity building; GAP capacity building; Mobile agro-advisory services; production capacity building; Plant health capacity building; Microbial resources; Biodiversity management.

Societies require effective public and private institutions to meet peoples' social, economic and civic needs. At CABI, we build the capacity of institutions so they can work effectively, respond to local demand or provide quality services. We work with existing organizations to form sound policies, structures and effective methods of management and revenue control.

Our goal is to ensure that the people we work with, and for, have the skills, resources and understanding to be able to sustain new initiatives, systems and approaches, both now and in the future. Our capacity building efforts go well beyond a focus on agricultural research and extension. We strengthen the networks, interactions, and policy and institutional conditions, as well as create the environment from which innovation arises.

To deliver impacts we facilitate, as well as teach and train. This allows farmers, advisers, technicians and policy-makers to explore their own and collective goal performance, enabling them to self-generate more effective ways of working. Our ability to combine training and facilitation skills with a culturally-sensitive local presence really sets us apart from other development organizations.

7

Publication of, and access to, authoritative information resources

CABI is a leading global publisher producing key scientific publications. Behind each of our outputs is a team of specialists committed to delivering the most relevant and authoritative information to researchers worldwide. Many of our projects relate to this issue and have been included previously. They include: Open access to information resources and platforms; Open data initiatives; Institutional knowledge management sharing.

CABI conducts science to find practical solutions to the most pressing problems in agriculture and the environment, whether it's working out how to stop pests destroying a crop or measuring the effects invasive species are having in a specific region.

In addition to publishing and creating authoritative information, we also managing knowledge and provide access to accurate, timely and relevant information to those who need it.
We work closely with user groups to optimise reach and impact, and identify both their knowledge management needs and appropriate communication channels. User groups include: policy makers, institutions, researchers, extension workers, farmers and land managers.

We lead on open access and information quality assurance. All of our information has a full metadata record, uses Dublin Core principles and has a controlled vocabulary.

KNOWLEDGE MANAGEMENT, COMMUNICATION AND USE

A multilingual thesaurus hub for linked data

Location: Global

Dates: 01/01/2014 – 31/12/2015

CABI Project Manager: Phil Roberts

CABI Project Team: Anton Doroszenko, Tony Pittaway

Donors: Food and Agriculture Organization (FAO); United States Department of Agriculture's National Agricultural Library (USDA NAL)

Partners: Food and Agriculture Organization (FAO); United States Department of Agriculture's National Agricultural Library (USDA NAL)

Since the G8 Conference on Open Data in Agriculture, the commitment to make data accessible in open formats has been growing. Working together with the United Nation's Food and Agriculture Organization's (FAO's) multilingual thesaurus 'AGROVOC' and the United States Department of Agriculture's National Agriculture Library's (USDA NAL) thesaurus, we are creating a single access point for new information systems.

www.cabi.org/thesaurus

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT | INSTITUTIONAL CAPACITY BUILDING

An international plant sentinel network for botanic gardens and arboreta

Location: Global

Dates: 01/01/2012 – 01/04/2016

CABI Project Manager: Gareth Richards

CABI Project Team: Lesley McGillivray, Huanhuan Wan, Hongmei Li, Tim Holmes

Donor: The Food and Environment Research Agency (FERA)

Partners: The Julius Kühn Institut (JKI); Botanic Gardens Conservation International (BGCI); The National Plant Protection Organisation (NPPO), the Netherlands; The Department for Innovation in Biological, Agro-food and Forest systems (DIBAF); University of Tuscia, Italy; Forest Research, Wales

Because of trade and climate change, the rate of new plant pests being introduced and establishing has increased. However, the scientific expertise is reducing. Coordination of the phytosanitary policies and regulations that underpin technical recommendations is needed. CABI is looking to overcome this issue by enhancing the activities that provide early warnings of new and emerging plant pests and diseases. Scientists can then look to prevent or mitigate the problem.

www.cabi.org/botanic-network

An old problem revisited: biological control of toadflaxes

Locations: Canada, United States of America

Dates: 1987 – Ongoing

CABI Project Manager: André Gassmann

CABI Project Team: Ivo Tosevski

Donors: Canada: Agriculture and Agri-Food Canada (AAFC); British Columbia Ministry of Forests, Lands and Natural Resource Operations, USA; Montana Noxious Weed Trust Fund through Montana State University, South Dakota Department of Agriculture; USDA; APHIS; CPHST; US Forest Service; Wyoming Biological Control Steering Committee

Partners: Dr Roberto Caldara, Milan, Italy; Dr Brent Emerson, Island Ecology and Evolution Research Group; IPNA-CSIC, La Laguna, Spain

Native to Europe, toadflaxes were introduced to the USA and Canada over 100 years ago as ornamental plants. They now occur over much of temperate North America and are declared noxious in eight US states. CABI is part of an effort to identify specific natural enemies that can be introduced into North America as biological control agents to reduce the vigour, density and spread of this invasive plant.

www.cabi.org/toadflax

Assessing a biocontrol agent for *Jatropha gossypiifolia*

Location: Trindad and Tobago

Dates: 01/07/2009 – 31/03/2016

CABI Project Managers: Marion Seier, Kate Pollard

CABI Project Team: Naitram Ramnanan, Nikolai Thom

Donor: Department of Agriculture and Fisheries (DAF)

Jatropha gossypiifolia (bellyache bush) is a major invasive plant in Australia. Previous biocontrol efforts have concentrated on insects but the Australian Government are now keen on trying fungal pathogens. As experts, CABI is carrying out safety and efficacy experiments on a rust fungus in Trinidad. Results will help the Australian authorities decide whether to import the rust fungus as a biocontrol agent for *J. gossypiifolia*.

www.cabi.org/jatropha

Biological control of diamondback moth in Canada

Location: Canada

Dates: 01/04/2014 – 31/03/2016

CABI Project Manager: Tim Haye

Donor: Agriculture and Agri-Food Canada

Partner: Agriculture and Agri-Food Canada

The diamondback moth is a global pest. Canadian farmers often have use chemicals to protect their crops. This is costly and the pest is becoming immune, meaning additional control options are needed. In Europe, Asia and Africa, *Diadromus collaris*, is a major parasitoid of the moth. It has been introduced to several countries or regions and has established as a successful biocontrol. CABI is therefore carrying out life table studies in Europe to determine if its introduction is a viable strategy.

www.cabi.org/diamond

CABIcore: re-engineering the CABI Knowledge Business

Location: Global

Dates: 01/01/2013 – 31/12/2017

CABI Project Manager: Philip Roberts

CABI Project Team: Derek Tapp, Guy Yeates, Linda Copsey, Michael Pearson

For over 100 years CABI has created and disseminated vast amounts of information relating to agricultural research and problem-solving. But much of this content can't be interrogated or integrated with recent content to generate new knowledge and insights. This programme aims to transform CABI's knowledge management platforms, providing flexibility to manipulate and deliver relevant, authoritative information to researchers, practitioners and farmers in the most suitable format.

www.cabi.org/cabicore

PUBLICATION OF AND ACCESS TO, AUTHORITATIVE INFORMATION RESOURCES

CABIcore's authoring and editing tool

Location: Global

Dates: 01/06/2015 – 01/04/2016

CABI Project Manager: Philip Roberts

CABI Project Team: Tim Khouri, Gareth Richards, Derek Tapp, Mattasser Nazir

We are providing a new tool to allow external and internal collaboration in order to author and edit compendia datasheets, Plantwise factsheets and multi-author dictionaries and encyclopaedia. This will greatly enhance the user experience for our external and internal contributors providing them with content when they are creating and editing work. It will also provide workflow improvements for internal editors to allow greater volume of content to be processed over a quicker time frame.

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Controlling earwigs in the Falklands

Location: Falkland Islands (Malvinas)

Dates: 01/04/2013 – 31/3/2017

CABI Project Manager: Norbert Maczey

CABI Project Team: Dave Moore, Steve Edgington, Nicolai Thom, Tim Haye

Donor: Falkland Island Government; Darwin Plus

The European earwig has become a considerable domestic and public nuisance in the Falkland Islands, causing significant problems for local horticulture by decimating many garden vegetable crops. This population explosion is due to the absence of natural enemies that would normally keep them under control. To try and find a solution to this problem, CABI is investigating the possibility of using two parasitic fly species to control the earwigs in a biological way.

www.cabi.org/earwigs

Controlling floating pennywort in a safe and sustainable way

Locations: United Kingdom, Argentina, Brazil, Netherlands

Dates: 01/04/2011 – 01/07/2017

CABI Project Manager: Djamila Djeddour

CABI Project Team: Suzy Wood, Kate Constantine, Richard Shaw, Marion Seier

Donor: Defra

Partners: EMBRAPA-Brazil; UNESP-BRazil; Fundación para el Estudio de Especies Invasivas (FuEDEI)

Floating pennywort is an invasive aquatic plant that can over-run water bodies in the UK, and is threatening habitats, native plants, fish and insects. Also a problem across much of Europe, this plant has rapid growth and can regenerate from small fragments. Management is mainly limited to mechanical clearance which is expensive and often ineffective. Through comprehensive host range testing, this project aims to identify the safest and most effective biocontrol agent to keep the plant in check.

www.cabi.org/pennywort

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Controlling swallow-worts the sustainable way

Locations: Canada, United States of America

Dates: 01/01/2006 – Ongoing

CABI Project Manager: André Gassmann

Donors: Agriculture and Agri-Food Canada (AAFC); USDA-ARS; Ithaca, NY, USA

Partner: The University of Rhode Island, USA

Swallow-worts (*Vincetoxicum nigrum* and *V. rossicum*) are Eurasian plants that have become invasive in North America. The overall goal of the project is to identify specific natural enemies that can be introduced to North America as biological control agents for swallow-worts.

www.cabi.org/swallow-worts

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Controlling the cabbage seedpod weevil in Canada

Location: Canada

Dates: 01/04/2009 – 31/03/2016

CABI Project Manager: Tim Haye

Donor: Agriculture and Agri-Food Canada (AAFC)

Partners: Agriculture and Agri-Food Canada (AAFC); University of Alberta, Edmonton, Canada

The cabbage seedpod weevil is a widely distributed pest of cruciferous crops in Europe and North America, causing substantial economic losses in canola crops in Canada. Current control measures still rely on applying broad-spectrum insecticides. We are collecting European distribution data for a parasitic wasp that is the weevil's most effective natural enemy in Europe, to find out whether it may prove successful in Canada.

www.cabi.org/NA_cabbage

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Controlling the invasive blackberry on the Galápagos Islands

Locations: Galápagos Islands, Ecuador and India

Dates: 01/02/2015 – 31/12/2015

CABI Project Manager: Carol Ellison

CABI Project Team: Kate Pollard, Alan Buddie, Lukasz Tymo

Donor: Fondo para el control de las especies invasoras de Galápagos (FEIG)

Partner: Galápagos National Park Directorate (GNPD)

The unique wildlife and farmland on the Galápagos Islands are threatened with a non-native invasive weed. The invasive blackberry now covers around 30,000 hectares and can grow up to 3m tall. CABI scientists are searching for potential biocontrol agents from the Asian native range of the blackberry to introduce here.

www.cabi.org/blackberry

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Controlling the noxious Russian knapweed in North America

Locations: United States of America, Canada

Dates: 01/01/1999 – Ongoing

CABI Project Manager: Urs Schaffner

Donors: Agriculture and Agri-Food Canada (AAFC); Montana Weed Trust Fund through Montana State University, USA; United States Department of Agriculture; Animal and Plant Health Inspection Service; Center for Plant Health Science and Technology (USDA-APHIS-CPHST); Wyoming Biological Control Steering Committee, USA

Partners: Biotechnology Biocontrol Control Agency, Italy; Ferdowsi University of Mashhad, Iran; Uzbek Academy of Sciences (UZAS); Çukurova University, Adana, Turkey; Russian Academy of Sciences; University of Belgrade, Serbia

Although native to Asia, Russian knapweed was accidentally introduced to North America over 100 years ago and is now causing untold problems across many states. Some decades ago, a nematode species was used in an effort to control the plant but it proved ineffective. Funded by a US and Canadian consortium CABI has been tasked with researching and introducing new classical biological control agents, some of which are already showing good promise.

www.cabi.org/knapweed

CLIMATE SMART AGRICULTURE | PUBLICATION OF AND ACCESS TO, AUTHORITATIVE INFORMATION RESOURCES

Creating, collating and sharing climate, environment, infrastructure and livelihoods information

Location: Global

Dates: 01/07/2014 – 31/07/2016

CABI Project Manager: Martin Parr

CABI Project Team: Debbie Cousins

Donor: Department for International Development (DFID)

Partners: Joint venture, led by IMC Worldwide and HTSPE

A great deal of valuable information on the climate, environment, infrastructure and livelihoods exists, but in many different places. This programme aims to bring together quality assured resources and make them readily available via the 'Evidence on Demand' website. Those working in international development will be able to access what they need to make evidence-based decisions at the touch of a button. The knowledge platform includes a training directory and a document library.

www.cabi.org/evidence-on-demand

PLANT HEALTH

Developing Integrated Pest Management for vegetables in Trinidad & Tobago

Location: Trinidad & Tobago

Dates: 01/09/2014 – 31/05/2015

CABI Project Manager: Sean T Murphy

Donor: Government of Trinidad & Tobago

Partner: Ministry of Food Production, Extension, Training & Information Services Division

A key priority in Trinidad & Tobago is diversifying the economy and achieving food security. Agriculture can do this, and producing vegetables for local markets is essential. Plant pest and pathogen problems however are a huge constraint. Historically farmers have relied on chemical pesticides but these lead to a higher cost of food production, pollution and health hazards. Our aim was to understand the constraints to adopting Integrated Pest Management (IPM) and to use this information to develop an implementation strategy.

www.cabi.org/IPM_Trinidad

KNOWLEDGE MANAGEMENT, COMMUNICATION AND USE | BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Effects of invasive species on critically endangered IUCN list species

Location: Global

Dates: 01/07/2014 – 01/08/2016

CABI Project Manager: Dave Hemming

CABI Project Team: Martin Parr

Donor: United States Department of Agriculture National Invasive Species Council (USDA-NISC)

Partners: United States Department of Agriculture National Invasive Species Council (USDA-NISC)

Invasive species are probably contributing to the decline or loss of many threatened species on the IUCN's RedList but no-one is sure what their role is, how damaging they are and how they are doing it. To allow for a greater understanding of this problem, we want to find, assess and understand evidence on the role of invasive species in the decline of critically endangered species on this list and the mechanisms involved.

www.cabi.org/IUCN-invasives

PUBLICATION OF AND ACCESS TO, AUTHORITATIVE INFORMATION RESOURCES

Free access to publishing products by Member Countries in bands 1 – 4

Location: Global

Applies to: CABI Member Countries in bands 1-4

CABI publishes high quality scientific resources. Every Member Country of CABI, with membership contributions in bands 1-4, and all Liaison Officers are eligible for free access to CABI information products and discounts on CABI books, compendia and databases.

www.cabi.org/benefits

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Free identification service for member countries in bands 1 – 4

Location: Global

Applies to: CABI Member Countries in bands 1-4

As part of CABI's benefits to our Member Countries, we offer a free identification service of microbial samples. Based at CABI's UK laboratories, we identify plant pathogenic fungi and bacteria that are agriculturally and horticulturally important, relate to food security and/ or plant health including quarantine organisms. The UK is a signatory to the Convention on Biological Diversity (CBD) and a party to the Nagoya Protocol on Access and Benefit Sharing. CABI operates in accordance with European legislation to implement these requirements.

www.cabi.org/benefits

CLIMATE SMART AGRICULTURE

Global warning: A global network of nurseries as early warning system against alien tree pests

Location: Global

Dates: 01/01/2015 – 31/12/2018

CABI Project Manager: René Eschen

CABI Project Team: Marc Kenis

Donor: COST – European Cooperation in Science and Technolgy (H2020)

Partners: Consortium of over 40 countries, European and Mediterranean Plant Protection Organization (EPPO)

The international trade in live plants is a major pathway for the introduction of invasive tree pests and pathogens, resulting in environmental and economic damage. Without knowing how harmful they could be, or that they even existed, they have not been regulated. A novel way of identifying potentially harmful organisms is to monitor trees in regions that export plants. The Action will establish a global network of scientists and regulators.

www.cabi.org/global-warning

KNOWLEDGE MANAGEMENT, COMMUNICATION AND USE

GODAN: Making agriculture and nutrition data open and searchable

Location: Global

Dates: 01/01/2015 – 31/12/2019

Executive Director: André Laperriere

Operations Manager: Martin Parr

Project Team: Diana Szpotowicz, Ben Schaap, Johannes Keizer

Donors: CGIAR; The Technical Centre for Agricultural and Rural Cooperation (CTA); Department for International Development (DFID); Food and Agriculture Organization of the United Nations (FAO); The Global Forum on Agricultural Research (GFAR); Government of The Netherlands; Open Data Institute (ODI); Federal government of the United States

Partners: Collaboration of over 100 partners

Open data – data that is freely available and machine-readable for everyone to use – is a vital resource for improving global food security and human health. The Global Open Data for Agriculture and Nutrition (GODAN) programme has been set up to take pioneering agriculture and nutrition research information and make it openly accessible – together with up-to-date information on soils, weather, land ownership, market prices and similar – to the people who need it most.

www.cabi.org/GODAN

PUBLICATION OF AND ACCESS TO, AUTHORITATIVE INFORMATION RESOURCES

Horticulture Compendium: a major new reference resource

Location: Global

Dates: 01/11/2013 – 01/12/2016

CABI Project Manager: Penny Perrins

CABI Project Team: Gareth Richards, Phil Roberts, Kelly Rogers, Suzanne Neave, Alexis Rendell-Dunn, Chris Parker

Donor: CABI Development Fund (CDF)

Partners: International Society for Horticultural Science (ISHS)

Around the world, development efforts are focusing on the need for smallholder farmers to grow a diverse range of horticultural crops, not only to improve their own nutritional intake, but to provide high value cash crops that can be traded to increase livelihoods. We have a large amount of practical information relating to horticultural production from our books that is not easily available online. Other content (eg. in our Crop Protection Compendium) is highly scientific in nature and not aimed at meeting the needs of practitioners and growers.

www.cabi.org/HortComp

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Managing invasive rubbervine in Brazil

Location: Brazil

Dates: 01/01/2013 – Ongoing

CABI Project Manager: Marion Seier

CABI Project Team: Yelitza Colmenarez, Harry Evans, Richard Shaw

Partners: Universidade Federal de Viçosa

Invasion by the alien plant rubbervine (devil's claw) is endangering native flora and fauna in northeastern Brazil. In the Caatinga the endemic Carnauba palm, with its highly valued wax, has come under threat. CABI, in collaboration with Brazilian counterparts, is seeking to evaluate the rust *Maravalia cryptostegia* as a potential biocontrol agent for devil's claw. The same rust has been used in Australia to successfully control another invasive alien rubbervine species.

www.cabi.org/rubbervine

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Managing red palm mite in Dominica and Brazil

Location: Brazil, Dominica

Dates: 01/08/2015 – 31/10/2015

CABI Project Manager: Yelitza Colmenarez

CABI Project Team: Sean T Murphy

Partners: Ministry of Agriculture in Dominica; Embrapa Roraima

The invasive red palm mite (RPM) was recently introduced in the Americas and has spread several Caribbean islands, and parts of South America and Brazil. Efforts are being made by CABI with the Ministry of Agriculture in Dominica and Embrapa Roraima to develop an Integrated Pest Management (IPM) package. Through its implementation, this project is looking forward to reducing the impact that this mite causes in production areas in Dominica and Brazil.

www.cabi.org/RPMLAC

PLANT HEALTH

Plantwise in the Caribbean and Latin America

Locations: Barbados, Bolivia, Brazil, Costa Rica, Grenada, Honduras, Jamaica, Nicaragua, Peru, Trinidad & Tobago

Dates: Ongoing

CABI Project Manager: Yelitza Colmenarez

CABI Project Team: Eduardo Hidalgo (Central America), Naitram Ramnanan (Caribbean), Javier Franco (CABI Associate – South America)

Donors: Australian Centre for International Agricultural Research; Department for International Development (DFID), UK; Swiss Agency for Development and Cooperation (SDC)

Partners: Ministries of Agriculture (including extension, research and regulatory departments and institutes); Universities; Non-governmental organizations; Farmers association (Cooperatives); Private sector

Agriculture in Latin America and the Caribbean is very diverse and complex. And pests and diseases are a huge problem. With Plantwise, we are boosting the extension services of 10 countries. Working with the different agricultural ministries, we are able to reach many more farmers, giving them the timely and relevant advice and information that they need to grow more and better crops.

www.cabi.org/PW-LAC

KNOWLEDGE MANAGEMENT, COMMUNICATION AND USE

R4D (Research for Development)

Location: Global

Dates: 01/01/2005 – 31/10/2017

CABI Project Manager: Martin Parr

CABI Project Team: Debbie Cousins

Donor: Department for International Development (DFID)

Partners: CommsConsult; Euforic Services; International Food Policy Research Institute (IFPRI)

The UK Department for International Development (DFID) supports many programmes and projects that aim to improve access to knowledge to further sustainable development. So, to better communicate their research impacts and to ensure that all people working for and with DFID have access to information, CABI is building a research portal. This brings together information across all the research sectors and has a distinctive presence in the global knowledge marketplace.

www.cabi.org/r4d

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Red palm mite's threat to coconut and native palms in Trinidad

Location: Trinidad & Tobago, UK

Dates: 01/09/2012 – 31/07/2013

CABI Project Manager: Bryony Taylor

CABI Project Team: Naitram Ramnanan, Sean Murphy

Donors: Global Environment Facility (GEF); Government of Trinidad and Tobago Ministry for Food Production

Partner: Forestry Division, Ministry of Environment & Water Resources, Trinidad

Red palm mites are invading the Caribbean, South Florida, and South and Central America. A project to assess the impact on native palms in the protected Nariva Swamp in Trinidad was initiated in 2012 as part of a larger project looking at the threats of invasive species across the Caribbean. The CABI team carried out surveys to assess the population densities on host plants and used CABI's Genetic Resource Collection to screen possible agents to use as an effective biological pesticide.

www.cabi.org/mites_trinidad

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Researching introduced forest species in Trinidad

Location: Trinidad & Tobago

Dates: 01/02/2015 – 31/01/2016

CABI Project Manager: Naitram Ramnanan

CABI Project Team: Arne Witt

Donor: Food and Agriculture Organization of the United Nations (FAO)

Many introduced species can have an adverse effect on native biodiversity, especially on a delicate island habitat such as Trinidad and Tobago. Three forest species are being particularly troubling, namely, *Tectona grandis* (teak), *Acacia mangium* (brown salwood) and *Leucaena leucocephala* (white leadtree). So, with funding from the FAO, CABI is researching the species to find out how they behave and where they have invaded with a view to controlling them sustainably.

www.cabi.org/tt_invasives

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Rescuing and restoring the native flora of Robinson Crusoe Island

Location: Chile

Dates: 01/04/2015 – 31/03/2018

CABI Project Manager: Steven Edgington

CABI Project Team: Yelitza Colmenarez, Sean T Murphy, Belinda Luke

Donor: Defra, Darwin Initiative

Partners: Chilean National Forestry Corporation (CONAF); Chilean Ministry of the Environment (MMA); Oikonos Ecosystem Knowledge; Instituto de Investigaciones Agropecuarias (INIA)

Robinson Crusoe Island, part of the Juan Fernández Archipelago in Chile, is under threat from invasive species. So action needs to be taken. As part of a larger management programme for the whole Archipelago, a team from CABI will help conserve and re-establish native species on the island. In the long term this project will provide the biological resources and protocols for replanting larger areas of land.

www.cabi.org/crusoe

Stemming the spread of Russian olive

Location: United States of America

Dates: 01/01/2007 – Ongoing

CABI Project Manager: Naitram Ramnanan

CABI Project Team: Arne Witt

Donors: Montana Noxious Weed Trust Fund through Montana State University; USDA; APHIS; CPHST; USDI Bureau of Land Management; Wyoming Biological Control Steering Committee

Partners: Biotechnology Biocontrol Control Agency (BBCA), Italy; Erciyes University, Turkey; Ferdowsi University of Mashhad, Iran; Russian Academy of Sciences; University of Belgrade, Serbia; University of Samarkant, Uzbekistan; Uzbek Academy of Sciences

Russian olive (*Elaeagnus angustifolia*) is a significant invasive weed in North America. It is especially a problem in western parts of USA where it affects many types of natural habitats; altering the ecosystem and its functions. As experts, CABI have been asked to look for a potential biological control that can slow the weed's spread to curb its impact.

www.cabi.org/olive

Systematic review: The impact of invasive species on endangered species

Locations: United States of America

Dates: 01/01/2012 – 30/06/2014

CABI Project Manager: Dave Hemming

CABI Project Team: Martin Parr, Nicola Wakefield, Holly Wright, Richard Shaw

Donor: United States Department of Agriculture (USDA)

Invasive species are likely to play a crucial and devastating role in driving native species to extinction. However, despite this assumption, the scientific evidence to support this notion has not been collected or examined systematically at a national or international level. We intend to carry out a systematic review which will collate all the evidence of how invasive species are impacting endangered species on the US Fish & Wildlife Service's list and provide a full answer to this.

www.cabi.org/SR_USDA

BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT

Tackling common tansy in North America

Locations: Canada, United States of America

Dates: 01/01/2006 – Ongoing

CABI Project Manager: André Gassmann

Donors: Canadian Agricultural Advancement Program through Agriculture and Food Council of Alberta; Saskatchewan Agriculture and Food (Agriculture Development Fund); British Columbia Ministry of Forests, Lands and Natural Resource Operations; TransCanada; Canadian Pacific; Cenovus FCCL Ltd; Enbridge Pipelines Inc; BC Hydro, USA; Montana Noxious Weed Trust Fund through Montana State University

Partners: Zoological Institute, Russian Academy of Sciences, St Petersburg, Russia; M. G. Kholodny Institute of Botany, Kiev, Ukraine; Biological Research Institute, Iaşi, Romania; McClay Ecoscience, Alberta, Canada

Common tansy (*Tanacetum vulgare*) is a Eurasian plant species that has become invasive in North America. Due to CABI's expertise in classical biological control we have been tasked with identifying specialist natural enemies from Eurasia that can be introduced into North America as biological control agents for common tansy.

www.cabi.org/tansy

PLANT HEALTH | INSTITUTIONAL CAPACITY BUILDING

Training on how to use pesticides in Colombia

Locations: Colombia, Santander, Huila and La Costa regions

Dates: 01/05/2014 – 01/01/2015

CABI Project Manager: Manfred Grossrieder

CABI Project Team: Yelitza Colmenarez, Erica Chernoh, Javier Garcia

Donors: Compania Colombiana de Tabaco S.A. (COLTABACO)

Partners: Philip Morris International (PMI) South America

Tobacco is an important cash crop for smallholder farmers in Colombia's lowlands as it directly affects their livelihoods. Inappropriate use of pesticides is a significant problem though here. The Philip Morris associate, Coltabaco, is interested in CABI providing training to its field technicians (who then support farmers) in order to alleviate the health risks of pesticides to the farming communities, and to provide high quality tobacco with minimal pesticide residues.

www.cabi.org/colombia_pests

Veterinary drug residues database supporting trade in safe animal products

Location: Global

Dates: 01/05/2014 – 31/12/2015

CABI Project Manager: Robert Taylor

CABI Project Team: Derek Tapp, Elizabeth Dodsworth, Phil Swarbrick, Roger Day

Donor: Standards and Trade, Development Facility (STDF)

Partner: Food Animal Residue Avoidance & Depletion Program (FARAD)

Standards in food safety and animal health safeguard human health, but can be seen as a barrier to trade. Understanding the standards of the countries producers are transporting to is key to avoiding bans. So, this project is investigating the feasibility developing a Global Veterinary Drug Database that provides information on drug residues. This information will help reduce drug residues entering the food chain; creating a health risk for consumers.

www.cabi.org/vetdrug

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