

## Save the Lamon bean from destructive viruses that prevent its economical cultivation and historical biodiversity

### Riferimenti

Tipo di progetto

Gruppo Operativo - Leader

Acronimo

FALARES

Tematica

Difesa da malattie e infestazioni

Information

Time frame

2019 - 2021

Durata

24 months

Partners (no.)

2

Regione

Veneto

Comparto

Orticoltura

Localizzazione

ITH33 - Belluno

Costo totale

€258.820,00

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP014: Italy - Rural Development

Programme (Regional) - Veneto

Parole chiave

Pest /disease control

Biodiversity and nature management

Plant production and horticulture

Food quality / processing and nutrition

Genetic resources

Agricultural production system

Sito web

<http://www.fagiolodilamon.it>

Project status

completed



### Objectives

The Lamon bean is subject to recurrent virus epidemics with severe productive losses. Virus diseases cannot be cured and actually cultivated ecotypes lacking in genetic resistance. In the present project we intend select plants that in fields, under high infective pressure conditions, shown resistance or tolerance to viruses. The selection process of plants under conditions of high infection pressure may be continuous, leading in the medium term to the selection of tolerant or resistant ecotypes. The farmers will have healthy seeds available, deriving from a process of "guided co-evolution" with pathogens and therefore with enhanced resilience.

### Activities

The main activities are organized in three WP and summarized as:

- Search of Lamon bean plants that behave as resistant or tolerant to viral plant pathogens in the field.
- Experimental confirmation of the status of resistance/tolerance in induced plants by artificial inoculations and application of laboratorial techniques in order to select induced and healthy plants. Molecular studies aimed to investigated origin of resistance/tolerance mechanisms.
- Improved virus-free seeds with enhanced resilience will be supplied to growers, annually.
- Diffused knowledge's by organizing local meetings and by means of several publications and a dedicated website <http://www.fagiolodilamon.it>

# Salvare il Fagiolo di Lamon da virus distruttive che compromettono la coltivazione, il reddito e la sua storica biodiversità (Bando Leader)

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<https://www.innovarurale.it/pei-agri/gruppi-operativi/bancadati-go-pei/salvare-il-fagiolo-di-lamon-da-virus-distruttive-che>

## Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Consorzio per la tutela del fagiolo di Lamon	Via C. Rizzarda Feltre 32032 Feltre BL Italy	328 4013143	info@fagiolodilamon.it
Partner	Università degli studi di Udine - Dipartimento di Scienze AgroAlimentari, Ambientali e Animali	Via delle Scienze 206 33100 Udine UD Italy	0432 558804	psegreteria.di4a@uniud.it

## Pratiche abstract

### Description

Selection of ecotypes of Lamon bean under virus infection pressure conditions. The selection of bean lines under controlled virus infection pressure (eg BCMV) represents an innovation from the point of view of the propagation of seeds. Usually in fact the seed propagation activity aims to obtain materials free from seed transmissible pathogens by excluding the contact between mother plant and a given pathogen. By this way the result is effective for the production of seeds free from the pathogen but at the same time there is no selection pressure exercised by the pathogen that could orient the selection of more tolerant genotypes. This innovative selection process can also be considered as "assisted" breeding, in fact the modern diagnostic techniques for pathogens will contribute to guarantee the absence of certain pathogens in the seed obtained. Consequently the seeds obtained by this process may be, as far as regards the absence of important pathogens, similar to those obtained in controlled cultivation environments but more resilient.

## Link utili

Titolo/Descrizione	Url	Tipologia
Sito del Capofila	<a href="http://www.fagiolodilamon.it/">http://www.fagiolodilamon.it/</a>	Link ad altri siti che ospitano informazioni del progetto