



INTRODUCING: THE INFECTARIUM

(PLANT DISEASE DEMONSTRATION GARDEN)

A stroll amongst the diversity of plants cultivated by man, and the diseases that attack them



Figure 1. Infectarium: partial aerial view.

- Recently inaugurated. Possibly the sole existing garden designed specifically as a training tool in plant pathology. It is significantly larger than the small (100 m²) pioneering "plant disease plot" (University of Exeter, Devon, UK established by S. A. J. Tarr and discussed in Webster (1985)* but no longer maintained.
- Environmental conditions at Viçosa (state of Minas Gerais, Brazil) are warm temperate allowing for the cultivation of crops ranging from equatorial (eg cocoa and rubber) to temperate (eg oats and apple).
- 190 species cultivated, collection growing and also serving as an economic botany demonstration garden.
- Collection includes cereals, vegetables, fruit crops, spices, ornamentals, oil and energy crops, fiber and forestry crops.
- 20 contain plots with soil infested with important soil pathogens (bacteria, nematodes, fungi and a vírus TMV).
- Offering an opportunity for students and the public, in general, to have direct contact with the
 plants that feed, stimulate, dress and provide energy and building materials for mankind from
 major crops to unconventional minor crops.
- Available for in loco observations of symptoms of many important plant diseases used as field classes for students in the Plant Pathology Department of the Universidade Federal de Viçosa (UFV)







Figure 2. Southern blight of beetroot.



Figure 3. Brown spot of rice, leaf spot of peanuts, anthracnose of Solanum jilo.

- Open for external visitors (students or the general public) on special occasions or through prior coordinated arrangement
- Source of teaching material for lab courses in plant pathology at UFV
- Major diseases of crops commonly present (depending on the weather conditions and crop availability at the time), eg: potato blight, soybean rust, sugarcane smut, papaya ringspot, bacterial wilt of tomato...
- Serving as a 'sentinel garden' indicating the arrival or presence of plant diseases which, as yet, have remained undetected in Brazil or of new diseases

Several new reports of diseases on crops published, based on observations in the Infectarium (https://www.infectario.ufv.br/novidades-fitopatologicas/) – several others in press







Figure 4. Cercospora Leaf spot of yellow yam.

TORRES, ABEL GALON; LISBOA, WILLYANE DA SILVA; COLMÁN, ADANS; BARRETO, R.W. . First record of *Cercospora apii* sensu lato causing leaf spots on yellow guinea yam in Brazil. Plant Disease, v. 100, p. PDIS-04-16-0480-PDN, 2016. https://apsjournals.apsnet.org/doi/full/10.1094/PDIS-04-16-0480-PDN



Figure 5. Sculpture based on AGRIOS, G.N. ed. Plant Pathology. 5ª Ed.

- Sculpture plant pathogens x plant cell
- Area *ca*. 6.500 m²
- Minimum visiting time: one hour
- Guided tours: booking by phone +55 (31) 3612-3042
- Location: Vila Gianetti 36, Campus Universidade Federal de Viçosa, Viçosa, MG, 36570-900, Brazil.
- Site: <u>www.infectario.ufv.br</u>.

Landscape project: Affonso Zuin

Executed by: Adão Célio, Henrique and Nataniel

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^{*} Webster J (1985). Plant pathology plots. Sydowia 38: 358-368.