

Faculty Research Interests

PHYTOTECHNY



ADRIANO TEODORO BRUZI

Research areas: Plant Breeding and Genetics

Main Projects:

1. Recurrent selection for soybean breeding: early maturity varieties, high grain yield, high oil and protein contents and high seed quality.



ANTÔNIO NAZARENO GUIMARÃES MENDES

Research area: Coffee breeding

Main Projects:

1. Selection of elite cultivars of arabica coffee in different environments in the State of Minas Gerais.
2. Evaluation and selection of progenies of coffee trees in different regions of Minas Gerais

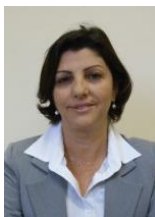


CÉSAR ELIAS BOTELHO

Research areas: Plant Breeding and Management of coffee plantations

Main Projects:

1. National trial of rust-resistant coffee cultivars.
2. Selection of elite cultivars of arabica coffee in different environments in the State of Minas Gerais and cerrado
3. Identification of progenies of coffee trees resistant to *Meloidogyne exigua* by means of molecular techniques.
4. Evaluation and selection of progenies of coffee trees in different regions of Minas Gerais.
5. Selection of genotypes from 'Icatu' crosses with elite cultivars aiming at productivity and resistance to rust.



ÉDILA VILELA DE RESENDE VON PINHO

Research areas: Seed production

Main Projects:

1. Gene expression related to the abiotic stresses
2. Seeds quality produced under water stress condition



ÉLBERIS PEREIRA BOTREL

Research areas and: Green manures for no-till system; Cassava production technology

Main Projects:

1. Adaptation and productivity of cover crops for grain producing regions.
2. Adaptation and breeding of the cassava crop for high productivity in the edaphoclimatic conditions of southern Minas Gerais.



EVERSON REIS CARVALHO

Research areas: Seeds postharvest processing

Main Projects:

1. Technologies to the industrial treatments of seeds and secure storage of seeds for quality.
2. Special techniques to the drying process, processing and storage aiming high quality of seeds.
3. Differentiated nutrition to the seeds storability.

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FERNANDA CARVALHO LOPES DE MEDEIROS

Research area: Crop protection

Main Projects:

1. Resistance management of herbicides and fungicides
2. Effect of biostimulating agents on the detoxification of herbicides
3. Chemical control of weeds, residual effect and phytotoxicity of herbicides
4. Dynamics of *Fusarium verticillioides* after herbicide treatment on maize stubble
5. Herbicides Leaching Potential in Association with Hydroretent Polymer
6. Dose response curve of different biotypes of sourgrass (*Digitaria insularis*) to the glyphosate herbicide



FLÁVIA BARBOSA SILVA BOTELHO

Research areas: Plant breeding

Main Projects:

1. Development of upland rice cultivars in the Minas Gerais state.
2. Validating the role of Erecta gene in heat temperature and identifying Erecta alleles for breeding heat tolerance in rice.
3. Enzimatic expression and phenotyping for hidric stress in upland rice.
4. Recurrent selection for early flowering in rice.



GLADYSTON RODRIGUES CARVALHO

Research areas: Coffee Breeding and production

Main Projects:

1. Selection of elite cultivars of arabica coffee in different environments in the State of Minas Gerais.
2. Evaluation and selection of progenies of coffee trees in different regions of Minas Gerais



HELOISA OLIVEIRA DOS SANTOS

Research area: Seed physiology and biotechnology

Main Projects:

1. Preservation and quality of forage seeds
2. Biotechnology applied to development and seeds quality



JOÃO ALMIR OLIVEIRA

Research area: Seeds postharvest processing

Main Projects:

1. Quality of soybeans enriched with micronutrients
2. Effect of chemical treatment on seed quality throughout storage
3. Methodology of drying and quality of seeds harvested with high water
4. Effect of processing on seed quality



JOSÉ DARLAN RAMOS

Research area: Tropical fruit science

Main Projects:

1. Management and cultural practices for dragon fruit, passion fruit, and avocado production
2. Management and cultural practices for citrus production



JOSÉ EDUARDO BRASIL PEREIRA PINTO

Research area: Plant tissue culture and organ culture

Main Project:

1. *In vitro* propagation of plants



JOYCE DORIA

Research area: Agroecology

Main Projects:

1. Composting and microbial inoculants
2. Plant growth promoting bacteria



LEILA APARECIDA SALLES PIO

Research areas: Tropical and subtropical fruit science

Main Projects:

1. Agroforestral system and sustainable agriculture
2. Abiotic stress induction in fruit plants
3. Biofortification of fruit
4. Innovation in cultivation system for dragon fruit, anona, banana, passion fruit, and avocado.



LUCIANE VILELA RESENDE

Research areas: Vegetables genetic breeding and cultivation.

Main Projects:

1. Genetic breeding of strawberry for the state of Minas Gerais: characterization, agronomic and molecular selection of clones.
2. Chemical, nutritional, allelopathic proprieties and enzymatic inhibitory potential of unconventional vegetables.



LUIZ ANTÔNIO AUGUSTO GOMES

Research areas: Breeding of Vegetable crops

Main Project:

1. Breeding of lettuce



MARIA LAENE MOREIRA DE CARVALHO

Research area: Seed quality control

Main Projects:

1. Image analysis in seed quality control
2. Seed storage and conservation



MICHELE VALQUÍRIA DOS REIS

Research areas: Ornamental plants, Urban green areas and afforestation

Main Projects:

1. Nanopolymers to improve tree performance on urban adverse conditions
2. Biomonitoring of air pollution by species used in urban afforestation
3. Cultivation and flowering in orchids



MOACIR PASQUAL

Research area: Plant Tissue Culture

Main Projects:

- 1 - Potential of several vegetal species aiming the repopulation of the Doce River Basin Region.
- 2 - Native fruit from the Cerrado biome of the Minas Gerais State: nutritional composition, propagation, morphanatomic, molecular and citometric studies, and chemical characterization of essential oils.
- 3 - Perspectives for the inhibition of trypsin in *Enterolobium contortisiliquum* and their effects on the biology of *Spodoptera frugiperda* (Lepidoptera: Noctuidae)



MURILLO DE ALBUQUERQUE REGINA

Research areas: Vine and wine

Main Projects:

1. Physiology and propagation of vine plants
2. Production of grapes for wine industry



PATRÍCIA DUARTE DE OLIVEIRA PAIVA

Research areas: Floriculture and Landscaping

Main Projects:

1. Postharvest of cut flowers
2. Ornamental plant propagation (including in vitro) and production
3. Studies on historical gardens
4. Urban green areas studies



RAFAEL PIO

Research areas: Subtropical and Temperate fruit science

Main Projects:

1. Development and production of pear in tropical regions
2. Innovative production of berries in tropical higher lands



RAQUEL MARIA DE OLIVEIRA PIRES

Research areas: Seed control and quality

Main Projects:

1. Use of image analyses to evaluate the quality of seed
2. Quality seeds evaluated with differential techniques of analyses



RENATO MENDES GUIMARÃES

Research areas: Seed physiology

Main Projects:

1. Physiological characteristics in seeds.



RENZO GARCIA VON PINHO

Research areas: Corn production and plant breeding

Main Projects:

1. Prediction of the performance of corn hybrids
2. Cultural management in different maize production systems
3. Improvement of corn for grain production and plant silage



RUBENS JOSÉ GUIMARÃES

Research areas: Management of coffee crops

Main Projects:

1. Optimization of water retention in coffee crops through traditional and innovative agronomic techniques.
2. Growth and productivity of irrigated coffee trees with different levels of fertilization;
3. Early selection of drought resistant coffee trees through anatomic and physiological studies of coffee genotypes.



SAMUEL PEREIRA DE CARVALHO

Research areas: Plant breeding/ Cultivar development

Main Projects:

1. Coffee breeding
2. Cassava breeding



SILVINO GUIMARÃES MOREIRA

Research areas: Major crops production systems

Main Projects:

1. Management of soil fertility, aiming at the construction of soil profile fertility
2. Phosphate fertilization of the annual crop production system
3. Management of production systems with annual crops



STTELA DELLYZETE VEIGA FRANCO DA ROSA

Research areas: Seeds storage and processing

Main Projects:

1. Advanced cryo-storage techniques in coffee explants using nanowarming and vitrification.
2. Quality assessment methodologies for seeds, seedlings and specialty coffees.
3. Image analysis technologies for detecting adulterations in raw and industrialized coffees.
4. Optimization of the seedlings of *Coffea arabica* L. propagation.



SUZAN KELLY VILELA BERTOLUCCI

Research areas: Phytochemistry and Plant production

Main Projects:

1. Antioxidant activity, quantitative and qualitative phytochemistry analysis on *in vivo* and *in vitro* crops systems in horticultural plants



VALTER CARVALHO DE ANDRADE JÚNIOR

Research areas: Production and Breeding of Vegetable crops

Main Projects:

1. Production and breeding of sweet potato
2. Production and breeding of garlic



WILSON ROBERTO MALUF

Research areas: Genetics and Breeding of Vegetable Crops

Main Projects:

1. Breeding tomatoes for arthropod pest resistance
2. Breeding tomatoes for resistance to water stress
3. Breeding tomatoes for salinity tolerance
4. Breeding strategies for long shelf life tomatoes
5. Breeding sweet peppers for multiple pathogen resistance
6. Breeding interspecific hybrid winter squash cultivars *Cucurbita maxima* x *C. moschata*
7. Breeding tropically adapted lettuce cultivars
8. Breeding tropical cauliflower hybrids