Av. Mitre and 20 de Junio
Villa Regina
Province of Río Negro - ARGENTINA
Tel. (54) 0298 4462810

Expedicionarios del Desierto 1310
Centenario
Province of Neuquén - ARGENTINA
Tel. (54) 0299 4899680

www.ciati.org
VISION

To be a technological center for the provision of specialized technical services, leader in the country and internationally recognized to make possible a:

• Better management of agro-industry and food businesses.
• Better management in the protection of the environment.
• A better quality of life

MISSION

Provide technological support through the provision of highly specialized analytical services, proven reliability and quality certified nationally and internationally, and technical assistance through qualified professionals, to contribute to:

• Companies related to the production, processing and marketing of food that require supporting their industrial, quality and commercial management.
• The study, control and evaluation of environmental industrial impact and other activities that may affect the ambient.
• Cost of analytical services and technical assistance

• Reliability and confidentiality

• Quality of results, "no defects" policy

• Flexibility

• Speed of action and management

• Innovation

• Knowledge

• Leadership
Since 1999, CIATI A.C. maintains the official Accreditation according to ISO 17025, with ENAC (National Accreditation Entity) of Spain for multiple methods.

In 2013 it received the certification of the OAA (Argentine Accreditation Organism) for the performance of Pesticide residues Studies in accordance with OECD Good Laboratory Practices.

In 2006, it was registered as an authorized laboratory In the Laboratories Network of SENASA (National Service for Agrifood Health and Quality).
REFERENCE LABORATORY
-**Technical Committees**

- **Fresh fruit pesticide residues**
- **Juice industrial operations**
- **Argentine wineries**
- **Tea cluster**

-**Agreements**

- **CONICET:** Professionals develop research work in CIATI facilities (2007).

- **COMAHUE National University:** Internship contracts with advanced students related to laboratory activity (2008).

- **Río Negro National University:** Working together in educational projects related to food industry interacting with students in laboratorios and pilot plant (2009).
<table>
<thead>
<tr>
<th>PROFESSION</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Lic.</td>
<td>8</td>
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<tr>
<td>Food Graduates</td>
<td>15</td>
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<tr>
<td>Food Technician</td>
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<tr>
<td>Engineers</td>
<td>5</td>
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<tr>
<td>Biochemistry Lic.</td>
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<tr>
<td>Dr. Molecular Biologist/Dr. Biotechnology</td>
<td>2</td>
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<tr>
<td>Microbiologist</td>
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<tr>
<td>Computer Science Bachelor</td>
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<tr>
<td>Food Lic. Student</td>
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<tr>
<td>Biochemistry Lic. Student</td>
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<tr>
<td>Auxiliary Services in maintenance, logistic, commercial, administration, safety</td>
<td>31</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>84</strong></td>
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<tr>
<td>EQUIPMENT</td>
<td>QUANTITY</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>UPLC MS-MS</td>
<td>3</td>
</tr>
<tr>
<td>GC MS-MS</td>
<td>3</td>
</tr>
<tr>
<td>HPLC RID, UV-Visible, Fluorescence and Diode array</td>
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</tr>
<tr>
<td>Conductivity HPLC</td>
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</tr>
<tr>
<td>GC: ECD (1), FID (9), MS (4), PFPD (1). Autoinjector Head Space, Purge &amp; Trap</td>
<td>9</td>
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<tr>
<td>Atomic Absorption spectrophotometer</td>
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<tr>
<td>HPLC-ICP-MS</td>
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<tr>
<td>PCR Real Time</td>
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<tr>
<td>Fluorescence detector</td>
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<tr>
<td>ELISA and enzymatic autoanalyzer</td>
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<tr>
<td>Automatic titrator</td>
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<tr>
<td>UV / Visible Spectrophotometer</td>
<td>3</td>
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<tr>
<td>Nephelometer</td>
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<tr>
<td>Near infrared spectrophotometer</td>
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</tr>
<tr>
<td>Other laboratory equipment</td>
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</tbody>
</table>

**PRINCIPAL EQUIPMENTS**
CHEMICAL ANALYSIS

- Profile of sugars and organic acids
- Antioxidants (ascorbic acid, BHT, BHA, TBHQ, PG)
- Alcohols
- Profile of polyphenols, anthocyanins and oligosaccharides
- Cations (Na, K, Ca, Ma, Fe, Cu)
- Anions (phosphorus, sulfates, nitrates, chlorides)
- Amino acid profile, formal index
- Process dependent variables: HMF, color, defects
• Humidity
• Ashes
• Total Nitrogen
• Total fats
• Cholesterol
• Total fiber
• Micronutrients
• Saturated and polyunsaturated fatty acids, cis and trans, Omega
• Amino acids
• Vitamins
• Caffeine

NUTRITIONAL

CHEMICAL ANALYSIS
• Analysis of CLAIMS
• Shelf-life studies (physical-chemical and microbiological)
• % juice in the composition of drinks and food
VITAMINS

• Vitamin A
• Vitamin B1, B2, B3, B5, B6, B9, B12
• Vitamin C, D, E
• Beta-carotene
• Glucosamine
• Taurine
• L-Carnitine
ANTIBIOTICS

- Tetracyclines
- Tylosin
- β-lactam
- Cephalosporins
- Quinolones
- Phenicoles
- Sulfonamides
- Endectocides
- Benzimidazoles
- Natamicine
- Nicine

CHEMICAL ANALYSIS
CHEMISTRY OF FLAVOR

- Chemical profile of apple and pear flavors
- 4-Ethylfenol and 4-Ethylguaiacol
- Anisoles, TCA and TBA in wines, environment, cork stoppers
- Volatiles in essential oils of lemon, orange and grapefruit
- Volatile orange aroma
- Alfa terpineol for citrus oils

CHEMICAL ANALYSIS
AUTHENTICITY

- Products derived from industrialization of fruit or vegetables
- Each product must match an internationally recognized compositional matrix
- Complete compositional matrix is analyzed and eventually carbon, oxygen or hydrogen isotopes and an oligosaccharide profile are evaluated.

CHEMICAL ANALYSIS
PESTICIDE RESIDUES

- Organophosphorous and organochlorines
- Pyretroid
- Bencimidazoles
- Phtalamides
- Carbaryl
- Conazoles
- Strobilurins
- Carbofuran
- Carbosulfan
- Fungicides
- Glyphosate and acid herbicides
- Paraquat and Diquat
CONTAMINANTS

- Heavy Metals (PB, CB, As, Chromium, Cr (VI), Sn, Mg, Zn, Hg)
- Arsenic speciation
- Special pollutants
- Melamine
- Phtalates
- BTEX
- PAHS
- Biogenic amines
- Volatile amines
- Mycotoxins
- Allergens
- Alkaloids
- Preservatives
- Sweeteners

CHEMICAL ANALYSIS
• Pathogenic microorganisms (bacteria and virus)
• Spoilage microorganisms (bacteria, yeast and molds)
• Indicator microorganisms
• Analysis of foods, water, animal feed
• Commercial sterility tests
• Shelf-life studies
• Challenge tests
• Ready-to-use culture media
• Modern methods for rapid microbiological results
WATER ANALYSIS

- Sample taking service and in-situ analysis:
  - pH, Conductivity, Temperature
  - Dissolved oxygen
  - % Saturation
  - Transparency
  - Oxide-reduction

- Wastewater and effluents analysis
- Water analysis (tap, process, surface, and ground)
- Well and leachates analysis

ENVIRONMENTAL ANALYSIS
WATER ANALYSIS

- Residual free chlorine and chlorine demand
- Ammonium / total nitrogen
- Cyanide analysis
- Anions and cations
- Total and dissolved solids
- Fixed and volatile solids
- Sedimentable solids
WASTEWATER AND EFFLUENTS

- Chlorophyll
- Pheophytin
- Phenols
- Anionic detergents
- BTEXM
- TPH – Total Oil Hydrocarbons
- PAH
- VOC’s
- Lead tetraethyl
- BOD, COD, suspended solids, pH
- Oils and grease
- Mud stabilization level
- Total Nitrogen

ENVIRONMENTAL ANALYSIS
SOIL AND SLUDGE

- Humidity, conductivity, solubles salts
- Anions and cations
- Cyanide analysis
- BTEXM
- THP
- PAHs
- VOCs
- PCBs

ENVIROMENTAL ANALYSIS
Headquarters CIATI AC
Villa Regina - Province of Río Negro
• Multiple effect evaporator for filtered and cloudy juices
• Multiple effect evaporator for pulps
• Recovery of aromas
• Precoat filters, plates, hollow fiber, membrane ultrafiltration
• Extractors by diffusion
• Mills
• Presses
• Cookers
• Refining machines
• Homogenizers
LABORATORIES
Headquarters CIATI AC
Centenario- Province of Neuquén
LABORATORIES
Thank You!