

HIGH ALTITUDE AGRICULTURE: INFORMATIONAL RESOURCES

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ECHO TECHNICAL NOTE

HIGH ALTITUDE RESOURCES

Andean Crops Program

Have germplasm; may be willing to share some seed with research groups. Potato; quinoa, haba, chocho (lupin, tarwi), amaranth; roots/tubers: melloco, oca, mashua, *Zanahoria blanca* (=arracacha), miso, jícama (=yacón), achira.

INIAP (Instituto Nacional de Investigaciones Agropecuarias)

Carlos Nieto

Av. Eloy Alfaro y Amazonas

Edificio del MAG, Piso 4,

Apartado 2600

Quito, Ecuador

phone 593-2-690-991; fax 593-2-528-650

e-mail: nieto@sc.iniap.gov.ec

Carlos Vimos N. (field station south of Quito on Panamerican Highway)

INIAP-Santa Catalina

Casilla 17-01-340

Quito, Ecuador

Andean Root and Tuber Program

Dr. Miguel Holle

c/o CIP

Apartado 5969, Lima, Peru

phone 51-14-366920; fax 51-14-351570

e-mail: mholle@virgo.cipa.org.pe

Mr. Emigdio Ballón

Mr. Ballón currently works with Seeds of Change. He also is a member of the Andean Crops Group, which focuses on 12 underutilized crops; meet every 2 years.

P.O. Box 291, Gila, New Mexico 88038, USA

505/535-2252

ECHO, 17391 Durrance Rd., North Ft. Myers FL 33917, USA

Phone: (239) 543-3246; Fax: (239) 543-5317

e-mail: echo@echonet.org; website- <http://www.echonet.org/>

Food for the Hungry-Bolivia

Mini-greenhouses (both home and commercial scale). Bolivia office probably has technical brochures in Spanish.

Food for the Hungry-Bolivia

Jorge Guerra in Bolivia (Fundación Contra el Hambre)

Casilla 5671

La Paz, Bolivia

E-mail: fhbcentral@megalink.com

High Altitude Gardens

Seed company; specialize in frost-tolerant, quick-maturing varieties which do well in cold climates. Their catalog (\$3) lists over 300 varieties of vegetables, plus herbs, wildflowers, and grasses.

High Altitude Gardens

P.O. Box 1048, Hailey, ID 83333, USA

phone 208/788-4363; fax 208/788-3452

e-mail higarden@micron.net

High Desert Research Farm

Presbyterian conference center (serves as a retreat and offers courses). Drought tolerant and high altitude crops production and research; "preservation and re-establishment of cereal grains native to Third World countries but now no longer available...seed bank...reliable food source requiring minimal water and no commercial fertilizer. Research and seeds are shared worldwide." At 6500 ft, 65 miles N of Santa Fe; in operation since 1984; grains and beans; highly recommended by Mark Dafforn (National Academy of Science) for work with Ethiopian barley.

High Desert Research Farm

(Director: Susie Verkamp)

Ghost Ranch

Abiquiu, New Mexico 87510, USA

505/685-4327 or -4333

ICIMOD (International Centre for Integrated Mountain Development)

Have germplasm (amaranth, chenopods, etc.) to share, but may be difficult to contact (Nepal). Someone from the field wrote, "ICIMOD has done extensive research [in land reclamation, erosion control, forest management, etc.] in the past 10 years. Their publications are excellent. There is room for lots more research, and most of their ideas have not yet been applied through extension work, etc."

ICIMOD

Mountain Farming Systems Division

GPO Box 3226

Kathmandu, NEPAL

Mr. Tej Partap

phone 5-215-75

IDRC (International Development Research Centre)

May be able to direct to local, especially Andean, resources. *One IDRC-backed project in Puno, Peru: PRODASA (Sustainable Highland Agriculture Project: Proyecto de Agricultura Sostenible del Altiplano; see PRODASA listing); see IDRC Reports Oct 1995.

IDRC

P.O. Box 8500

Ottawa, Ontario, Canada K1G 3H9

phone 613/236-6163; fax 613/563-0815

e-mail: mag@idrc.ca

Dr. Duane Johnson

Quinoa resource person.
Colorado State University
Fort Collins, CO 80523, USA
970/491-6438
djohnso@ceres.agsci.colostate.edu

Alan Mace

Knowledgeable organic gardener at 7200 ft. Malachite School and Small Farm teaches sustainable farming techniques.
Malachite
ASR Box 21
Gardener, CO 81040, USA
719/746-2412

Dr. John McCamant

U of Denver professor; specialist in quinoa breeding and adaptation. He has David Cusack's quinoa collection (excellent, varied, unique); knows about Bolivian and Chilean types. In growing quinoa, mildew is the biggest problem, overcome by crossing with wild lambsquarter for a black-seeded, chewy type; gladly shares quinoa seed samples; has some oca (short-day) and ulluoco (heat sensitive) if anyone is really eager to have some and cannot get it from the Andes.
Sierra Blanca Associates
2560 S. Jackson, Denver, CO 80210, USA
303/756-9507

Oregon Exotics Nursery

Oregon Exotics Nursery sent us their latest catalog which has 91 pages of rare fruits, nuts, and vegetables collected in the Andes, Nepal, and other exotic locales. Many food plants described in our book *Amaranth to Zai Holes: Ideas for Growing Food Under Difficult Conditions* are available in the catalog, along with many, many more that I have never encountered before. Ten varieties of yam (*Dioscorea*) species are listed; eight varieties of passionfruit, including the giant *Passiflora quadrangularis*; Andean and Asian fruits of all kinds, little known traditional root crops, nut trees (including *tocte* or *Juglans neotropica*, the Andean walnut now being planted in Australia and New Zealand), and more. Most of the plants are sub-tropical, though some are temperate and a few are tropical. Note that this is a nursery catalog, not a seed company catalog. Some species are available as seed, but most species are shipped as plants and tend to be expensive. Orders shipped outside the U.S. must be for a minimum of US\$100, and plant and shipping prices increase by 50% for such orders. Phytosanitary certificates are an additional US\$20. If possible, you may wish to order plants on your next visit to the U.S. Catalogs are US\$4.

Oregon Exotics Nursery
1065 Messinger Road
Grants Pass, OR 97527, U.S.A.
phone: 541-846-7578, fax: 541-846-9488

PRODASA

PRODASA is part of CONDESAN (Consortium for Sustainable Andean Development), presently coordinated by CIP (International Potato Center, Apartado 1558, Lima 100, Peru). Interdisciplinary: Soil conservation, alternative farming technologies/systems, animal production.

Mr. Carlos U. León-Velarde (project leader, specialist in animal production and farming systems)

PRODASA
Casilla 12-018, Lima, Peru
phone (51 14) 311 356;
e-mail cleon@cipa.org.pe

Redwood City Seed Company

Grows lots of Andean crops and other underexploited plants; ask for seed catalog. Reprints *Lost Crops of the Incas*, color photocopies, \$40 including surface mail (for airmail add \$12 in the Americas, \$16 in Europe, and \$20 in the Pacific Rim).

Redwood City Seed Company

(Craig Dremann)

P.O. Box 361

Redwood City, CA 94064

415/325-7333

website- <http://www.Batnet.Com/rwc-feed/>

SMALL

SMALL was a network of organizations and individuals in the southern Rockies interested in developing/supporting successful, sustainable farming systems for higher elevations around the world.

SMALL is currently inactive (3/96), but the interested people at the Institute may be able to offer some help.

Sustainable Mountain Agricultural Alliance

The Telluride Institute

P.O. Box 1770

Telluride, CO 81435, USA

phone 303/728-4981.

The Tef Company

Source of tef seed. Maskal Forages changed its name to The Tef Company; 'tithes his grain back to Ethiopia.

The Tef Company

Wayne Carlson

P.O. Box A,

Caldwell, Idaho 83606, USA

208/454-3330