TECHNICAL NOTES

United States Department of Agriculture Portland, Oregon

Natural Resources Conservation Service September 2014

Plant Materials No. 41

Cover Crop Resources and Seed Vendors for Oregon and Washington

Compiled by

Annie Young-Mathews, NRCS Plant Materials Center, Corvallis, Oregon **Pamela Pavek**, NRCS Plant Materials Center, Pullman, Washington

Soil health management is a growing concern for many farmers, ranchers, and land managers in Oregon and Washington. Cover crops can be an integral part of a soil health management system by adding plant diversity to a crop rotation. Cover crops have the potential to increase soil microbial diversity, feed the soil food web for a longer period, and provide plant residue which may help with soil moisture management, reducing temperatures, preventing surface crusting, and suppressing weeds. According to the NRCS Cover Crop Practice Standard (340), purposes of a cover crop include:

- Reduce erosion from wind and water.
- Increase soil organic matter content.
- Capture and recycle or redistribute nutrients in the soil profile.
- Promote biological nitrogen fixation and reduce energy use.
- Increase biodiversity.
- Pest and/or weed suppression.
- Soil moisture management.
- Reduce particulate emissions into the atmosphere.
- Minimize and reduce soil compaction.

The purpose of this Technical Note is to facilitate the use of cover crops in Oregon and Washington by providing a list of cover crop seed vendors for the Pacific Northwest, including sources of organic seed (Part A), and a list of reputable online resources for growers and conservationists to learn more about selecting, using, and managing cover crops in Oregon and Washington (Part B).



Part A. Cover Crop Seed Vendors for Oregon and Washington

Below is a list of cover crop seed vendors and wholesale seed companies serving Oregon and Washington. Users of this list should note that this is only a partial listing of seed sources (retailers and wholesalers) for each state. If you find the information to be inaccurate, please contact Annie Young-Mathews at (541) 757-4812 or Anna. Young-Mathews@or.usda.gov, or Pamela Pavek at (509) 335-6894 or Pamela.Pavek@wa.usda.gov, with the accurate information so the list can be updated. This list does not constitute an endorsement of the vendors, nor does it guarantee the reliability or quality of products.

Oregon Retailers:

Andrews Seed Company

580 S. Oregon St, Ontario, OR 97914 Phone: 541-889-9109 or 800-240-8887

Fax: 541-889-6470

Website: http://www.andrewsseed.com Legumes, cereal grains, brassicas, grasses

Emerald Seed & Supply

6535 NE 11th St, Redmond, OR 97756 Mailing: PO Box 215, Terrebonne, OR

97760

Phone: 800-826-8873 or 541-504-0307

Email: emeraldss@ykwc.net

Website:

http://www.emeraldseedandsupply.com

Grasses and legumes

Hobbs & Hopkins Ltd.

1712 SE Ankeny St., Portland, OR 97214 Phone: 800-345-3295 or 503-239-7518

Fax: 503-296-5528

Email: info@protimelawnseed.com

Website: http://www.protimelawnseed.com

Grasses

Outside Pride

915 N. Main, Independence, OR 97351

Phone: 800-670-4192 Fax: 503-606-0659

Website: http://www.outsidepride.com
Legumes, buckwheat, ryegrass, pollinator

plants, ground covers

Pendleton Grain Growers, Inc.

4600 NW McKennon Rd Pendleton, OR 97801 Phone: 541-278-5077

Email: seed@pggcountry.com

Website: http://www.pggcountry.com Grains, canola, alfalfa, peas, grasses

Riverview Seed Co.

84917 Hwy 37, Hermiston, OR 97838

Phone: 541-564-0366 Email: rvseed@eotnet.net Cereal grains, grasses

Round Butte Seed/Helena Chemical Co.

505 C Street, Culver, OR 97734

Phone: 541-546-5222 or 866-475-6692 Website: http://www.helenaculver.com Cereal grains, legumes, broadleaves, grasses

Sunmark Seeds

18032 NE Airport Way, Portland, OR 97230

Phone: 503-241-7333 or 888-214-7333

Fax: 503-491-0279

Email: info@sunmarkseeds.com Website: http://sunmarkseeds.co Legumes, cereal grains, grasses

Territorial Seed Company

PO Box 158, Cottage Grove, OR 97424

Phone: 800-626-0866 Fax: 888-657-3131

Email: info@territorialseed.com

Website: http://www.territorialseed.com Legumes, brassicas, cereal grains (some

organic)

Your Local Farmers Co-op, Farm Supply, or Feed & Seed

Usually offer a limited selection of small grains and legumes (often common types rather than named/improved varieties)



Washington Retailers:

Clearwater Seed

827 W 1st Ave, Suite 307 Spokane, WA 99201

Phone: 509-343-3108 or 866-440-5431

Fax: 509-343-3109

Email: clearwaterseed@comcast.net Website: http://www.clearwaterseed.com Diverse selection of legumes, small grains, ryegrass, brassicas, broadleaves, and native

insectary mixes

Grassland West

PO Box 489, Clarkston, WA 99403

Phone: 509-758-9100 Fax: 509-758-6601

Website: http://www.grasslandwest.com
Legumes, brassicas, cereal grains, forage

grasses

Great Basin Seed

1040 Russell Rd, Mesa, WA 99343

Phone: 509-265-4250 Brassicas, buckwheat

High Performance Seed, Inc.

201 E 3rd Ave #210 Moses Lake, WA 98837 Phone: 509-765-9672

Brassicas

L & H Seeds, Inc.

4756 West SR 260, Connell, WA 99326

Phone: 509-234-4433 Fax: 509-234-0202 Email: info@lhseeds.com

Website: http://www.lhseeds.com

Diverse selection of legumes, small grains, brassicas, broadleaves, turf & forage grasses, and native grasses and wildflowers

McClean Seed Co.

9516 SR 17 N, Coulee City, WA 99115

Phone: 509-632-8709

Email: jmcleanseed@gmail.com

Legumes, brassicas, cereal grains, forage

grasses

McKay Seed Company, Inc.

2945 Rd "N" NE, Moses Lake, WA 98837 Phone: 509-766-9894 or 800-258-4599

Fax: 509-766-9897

Website: http://www.mckayseed.com

Brassicas and buckwheat

Osborne Seed Company, LLC.

2428 Old Hwy 99 S. Rd Mt Vernon, WA 98273 Phone: 360-424-7333 Fax: 360-424-8900

Email: cosborne@osborneseed.com Website: http://www.osborneseed.com Diverse selection of legumes, cereal grains,

broadleaves, and insectary flowers

Rainier Seeds, Inc.

1404 4th St, Davenport, WA 99122

Phone: 509-725-1235 Fax: 509-725-7015

Email: rainierseeds@rainierseeds.com Website: http://www.rainierseeds.com Diverse selection of legumes, small grains, brassicas, broadleaves, turf & forage grasses, and native grasses and wildflowers

Seeds, Inc.

PO Box 866, Tekoa, WA 99033

Phone: 509-284-2848 Fax: 509-284-6464

Email: kathy@plantsofthewild.com

Website: http://www.plantsofthewild.com Diverse selection of legumes, small grains, brassicas, broadleaves, turf & forage

grasses, and native grasses and wildflowers

Spectrum Crop Development

57 N Marcellus Road, Ritzville, WA 99169

Phone: (509) 659-1757

Email: ecfarms@ritzville.com

Mustard, canola, sunflower, safflower

Your Local Farmers Co-op, Farm Supply, or Feed & Seed

Usually offer a limited selection of small grains and legumes (often common types rather than named/improved varieties)



California Retailers (serving southern Oregon):

A.L. Gilbert - Farmers Warehouse

P.O. Box 160, Keyes, CA 95328

Phone: 209-632-2333 or 800-400-6377

Fax: 209-634-6341

Website: http://farmerswarehouse.com

Forage, pasture & cover crop mixes; alfalfa,

small grains

Hearne Seeds

512 Metz Rd, King City, CA 93930

Phone: 800-253-7346

Email: seedsales@hearneco.com
Website: http://www.hearneseed.com
Legumes, brassicas, cereal grains, forage

grasses (some organic)

Kamprath Seeds, Inc.

205 Stockton St, Manteca, CA 95337

Phone: 209-823-6242 Fax: 209-823-2582

Email: alan@kamprathseed.com

Legumes, cereal grains, brassicas, grasses

S & S Seeds, Inc.

P.O. Box 1275, Carpinteria, CA 93014

Phone: 805-684-0436 Fax: 805-684-2798

Email: info@ssseeds.com

Website: http://www.ssseeds.com Clovers, lupines, Phacelia, natives



Organic Cover Crop Seed Vendors

Harmony Farm Supply & Nursery

PO Box 460, Graton, CA 95444

Phone: 707-823-9125

Email: info@harmonyfarm.com

Website: http://www.harmonyfarm.com
Diverse selection of organic & non-organic legumes, mustard, cereal grains, pasture

grasses, and insectary flowers

High Mowing Organic Seeds

76 Quarry Rd, Wolcott, VT 05680

Phone: 802-472-6174 Fax: 802-472-3201

Email: questions@highmowingseeds.com Website: http://www.highmowingseeds.com Diverse selection of organic legumes, cereal grains, broadleaves, grasses, and insectary

flowers

Johnny's Selected Seeds

955 Benton Ave, Winslow, ME 04901

Phone: 877-564-6697

Website: http://www.johnnyseeds.com
Diverse selection of organic & non-organic legumes, cereal grains, broadleaves, and

insectary flowers

Naomi's Organic Farm Supply

2615 SE Schiller St, Portland, OR 97202

Phone: 503-517-8551 Fax: 503-546-9755

Email: order@naomisorganic.com

Website: http://naomisorganic.blogspot.com
Diverse selection of organic & non-organic legumes, cereal grains, broadleaves, and

grasses

Nash's Organic Produce

4681 Sequim-Dungeness Way

Sequim, WA 98382 Phone: 360-683-4642 Fax: 360-683-6807

Email: sales@nashsorganicproduce.com Website: http://nashsorganicproduce.com

Organic legumes and cereal grains

Osborne Seed Company, LLC.

2428 Old Hwy 99 S. Rd Mt Vernon, WA 98273 Phone: 360-424-7333 Fax: 360-424-8900

Email: cosborne@osborneseed.com Website: http://www.osborneseed.com Diverse selection of organic & non-organic legumes, cereal grains, broadleaves, and

insectary flowers

Peaceful Valley Farm Supply

PO Box 2209, Grass Valley, CA 95945

Phone: 888-784-1722

Email: helpdesk@groworganic.com Website: http://www.groworganic.com Diverse selection of organic & non-organic legumes, cereal grains, brassicas, grasses, broadleaves, and insectary flowers;

inoculant

Welter Seed & Honey Co.

17724 Hwy. 136, Onslow, IA 52321 Phone: 563-485-2762 or 800-728-8450

Fax: 563-485-2764

Email: info@welterseed.com

Website: http://www.welterseed.com

Diverse selection of organic & non-organic legumes, brassicas, cereal grains, grasses,

and broadleaves: inoculant



Wholesale Seed Companies in the Pacific Northwest

Wholesale seed companies carrying cover crop products with regional distributors (often targeted at the Midwest), but may offer some direct sales.

Ampac Seed Company

PO Box 318, Tangent, OR 97389 Email: info@ampacseed.com

Website: http://www.ampacseed.com

Forage, ryegrass, radish

Bailey Seed Company, Inc.

PO Box 12788, Salem, OR 97309

Phone: 800-407-7713 Email: info@baileyseed.com

Website: http://www.baileyseed.com Legumes, buckwheat, cereal rye, ryegrass

Barenbrug USA

33477 Oregon 99E, Tangent, OR 97389 Phone: 541-926-5801 or 800-547-4101 Website: http://www.barusa.com/forage Clovers, alfalfa, brassicas, forage grasses

Cal/West Seeds (Dow)

38001 Co. Rd 27, Woodland, CA 95695

Phone: 530-666-3331

Website: http://www.calwestseeds.com

Alfalfa, clover, safflower, sorghum-sudangrass,

teff grass

DLF Organic

175 West H St, Halsey, OR 97348

Phone: 800-445-2251 Email: info@dlforganic.com

Website: http://www.dlforganic.com
Organic clovers, forage grasses, mixes

Grassland Oregon

PO Box 17219, Salem, OR 97305

Phone: 503-566-9900

Email: in fo@grassland or egon.com

Website: http://www.grasslandoregon.com Legumes, brassicas, buckwheat, ryegrass,

Phacelia, cereal rye

KB Seed Solutions

25432 Rowland Rd, Harrisburg, OR 97446

Phone: 866-716-7333

Website: http://kbseedsolutions.com

Radish, turnip, peas, clover, annual ryegrass

Legacy Seeds, Inc.

2818 Brandt Ave, Nampa, ID 83651

Phone: 877-588-7621

Website: http://www.legacyseeds.com
Brassicas, cereal grains, legumes, alfalfa, sudangrass, turf & forage grasses/mixes

Lewis Seed Co.

31810 Fayetteville Dr, Shedd, OR 97377

Phone: 541-491-3700

Email: bdozler@lewisseed.com

Website:

http://www.lewisseed.com/products.html Brassicas, legumes, turf & forage grasses

OreGro Seeds, Inc.

33080 Red Bridge Rd SE,

Albany, OR 97322 Phone: 541-258-1001

Email: joemacjr@oregroseeds.com

Website:

http://www.oregroseeds.com/forage.html Legumes, cereal grains, turf/forage grasses

Saddle Butte Ag, Inc.

PO Box 50, Shedd, OR 97377

Phone: 541-928-0102

Email: seed@saddlebutte.com

Website:

http://www.saddlebutte.com/cover-crops Ryegrass, legumes, brassicas, cereal grains

Seed Research of Oregon

33095 Hwy 99E, Tangent, OR 97389

Phone: 541-757-2663

Website: http://www.sroseed.com

Turf grasses, legumes

Weaver Seed of Oregon

PO Box 67, Crabtree, OR 97335

Phone: 541-924-9701

Email: weavertrees@msn.com

Website: http://www.weaverseed.com

Brassicas, peas, triticale, oats, favas, annual

ryegrass



Part B. Cover Crop Resources for Oregon and Washington

National Cover Crop Resources:

- SARE Cover Crops Topic Room—Collection of educational materials developed out of decades of SARE-funded cover crop research. http://www.sare.org/Learning-Center/Topic-Rooms/Cover-Crops
 - Managing Cover Crops Profitably, 3rd Editon. 2007. A. Clark, ed., SARE. This comprehensive book explores how and why cover crops work and provides all the information needed to build cover crops into any farming operation. (Free downloadable pdf) http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition
 - Building Soils for Better Crops, 3rd Edition. 2010. F. Magdoff and H. Van Es. Another great book from SARE that is a practical guide to ecological soil management, providing step-by-step information on soil-improving practices as well as in-depth background—from what soil is to the importance of organic matter. (Free downloadable pdf) http://www.sare.org/Learning-Center/Books/Building-Soils-for-Better-Crops-3rd-Edition
- ATTRA National Sustainable Agriculture Information Service, a program of the National Center for Appropriate Technology (NCAT)—Many publications and other resources on cover crops, soil health assessment and improvement, and general sustainable agriculture topics. https://attra.ncat.org/
 - Overview of cover crops and green manures. 2003. P. Sullivan. Publication summarizing the principal uses and benefits of cover crops and green manures. (16 pages, available for purchase) http://www.attra.org/attra-pub/covercrop.html
- eXtension Articles, webinars, videos, and "Ask-an-Expert" for information from Land Grant Universities on agricultural topics, including cover crops. https://www.extension.org/

<u>Oregon State University Extension & Small Farms Program Resources:</u>

- Using Cover Crops in Oregon. 1998. R. Sattell. EM 8704—Information on cover cropping systems and cover crop species for Oregon.

 http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/24506/EMNO8704.pdf?sequence=1
- Organic Fertilizer and Cover Crop Calculator. N. Andrews, D. Sullivan, J. Julian and K. Pool. This free online tool compares the nutrient value and cost of cover crops, organic and synthetic fertilizers and compost. Use this Excel Calculator to develop well balanced and cost effective nutrient management programs for your farm. http://smallfarms.oregonstate.edu/calculator
- Cover Crops for Home Gardens. 1999. R.L. Rackham and R. McNeilan. FS 304. Simple 2-page fact sheet on the basics of cover cropping for home gardeners. http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/17462/fs304-e.pdf
- Forage Information System—Comprehensive, searchable database on forage research, educational opportunities, and professional resources worldwide. http://forages.oregonstate.edu/



Washington State University Extension Resources:

- Cover Crops as a Floor Management Strategy for Pacific Northwest Vineyards. 2006. M.A. Olmstead. EB2010. http://cru.cahe.wsu.edu/CEPublications/eb2010/eb2010.pdf
- Mustard Green Manures A collection of publications, resources, on-farm research, and field day materials A. McGuire. http://csanr.wsu.edu/mustard-green-manures/
- Planting Date Guide for Winter Wheat Cover Crops to Control Wind Erosion in the Columbia Basin. 2008. H. Kok et al. EB2030E. http://cru.cahe.wsu.edu/CEPublications/eb2030e/eb2030e.pdf
- Reduced Tillage for Green Manure Legumes. 1989. R. Veseth. PNW Conservation Tillage Handbook Series. http://pnwsteep.wsu.edu/tillagehandbook/chapter2/021489.htm
- *Using Green Manures in Potato Cropping Systems.* 2003. A. McGuire. EB1951E. http://cru.cahe.wsu.edu/CEPublications/eb1951e/EB1951E.pdf

<u>University of California Sustainable Agriculture Research and Education Program (UC SAREP) Resources:</u>

- Cover Crops Database—A searchable database containing information on over 40 crop species that can be used as cover crops. http://www.sarep.ucdavis.edu/database/covercrops
- Cover Crop Papers and Publications—Newsletter articles and publications on cover crop selection, biology, and management. http://www.sarep.ucdavis.edu/covercrop/res/cover-crop-publications/cover-crop-papers-and-publications/

USDA-NRCS and ARS Resources:

- Cover Crop Chart (aka Periodic Table of Cover Crops) ARS http://www.ars.usda.gov/main/docs.htm?docid=20323
- Cover Crops and Soil Health—Termination guidelines, study progress reports, cover crop Plant Guides, and additional resources from the NRCS National Soil Health and Sustainability Team and the Plant Materials Program.

 http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/landuse/crops/?cid=stelprdb
 1077238
- Crop Nutrient Tool—Calculates the approximate amount of N, P, and K that is removed by the harvest of agricultural crops. https://plants.usda.gov/npk/main
- PLANTS Database—List of cover crops and Plant Guides for most commonly used species. https://plants.usda.gov/java/coverCrops
- OR NRCS Plant Materials Technical Note 13: *Plants for Pollinators in Oregon* (2008). Includes a list of cover crops attractive to native pollinators and beneficial insects.

 http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn7451
 http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn7451
 https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn7451
 https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publication
- WA NRCS Plant Materials Technical Note 14: Conservation Cover Technology 14.1 Principal Uses of Cover Crops and Green Manures, and 14.2 Conservation Covers for Vineyards and Orchards (2005)
 - http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn633 8.pdf



- WA NRCS Plant Materials Technical Note 22: The Potential for Legume Cover Crops in Washington Apple Orchards (2014)

 http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn121

 49.pdf
- WA NRCS Agronomy Technical Note 2: Winter Cover Crops for the Irrigated Sandy Soils in the Columbia Basin (1986)

 http://efotg.nrcs.usda.gov/references/public/WA/A.2Winter_Cover_Crops_for_Irrigated_Sandy_Soils.pdf
- WA NRCS Agronomy Technical Note 8: *Late Fall Seeded Cover Crop Trials* (1996)

 http://efotg.nrcs.usda.gov/references/public/WA/A.8Late_Fall_Seeded_Cover_Crop_Trials.pdf
- WA NRCS Agronomy Technical Note 10: Planting Dates for the Fall Cover Crops in the Irrigated Columbia Basin (2000)
 http://efotg.nrcs.usda.gov/references/public/WA/A.10 Planting Dates for Fall Cover C rops.pdf
- WA NRCS Agronomy Technical Note 11: Wind Erosion Control in Washington Potatoes (1994)
 http://efotg.sc.egov.usda.gov/references/public/WA/A.11Wind_Erosion_Control_in_WA_Potatoes.pdf
- WA and ID NRCS Agronomy Technical Note 56: Cover Crops (2010)

 http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmstn10095.pdf

Organic Cover Cropping Resources:

- Cover Crop (340) in Organic Systems: Oregon Implementation Guide. 2014. NRCS, NCAT, The Xerces Society, and Oregon Tilth. http://tilth.org/files/r-e/ocp/oregon-resources/cover-crop-in-organic-systems-oregon-implementation-guide
- eOrganic The organic agriculture community of practice for eXtension–searchable/interactive website and database of articles, webinars, videos, and "Ask-an-Expert". http://eorganic.info/

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the bases of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file an employment complaint, you must contact your agency's <u>EEO Counselor</u> (PDF) within 45 days of the date of the alleged discriminatory act, event, or in the case of a personnel action. Additional information can be found online at http://www.ascr.usda.gov/complaint_filing_file.html.

If you wish to file a Civil Rights program complaint of discrimination, complete the <u>USDA Program Discrimination Complaint Form</u> (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.



Individuals who are deaf, hard of hearing or have speech disabilities and you wish to file either an EEO or program complaint please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish).

Persons with disabilities who wish to file a program complaint, please see information above on how to contact us by mail directly or by email. If you require alternative means of communication for program information (e.g., Braille, large print, audiotape, etc.) please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

For any other information dealing with Supplemental Nutrition Assistance Program (SNAP) issues, persons should either contact the USDA SNAP Hotline Number at (800) 221-5689, which is also in Spanish or call the State Information/Hotline Numbers.

For any other information not pertaining to civil rights, please refer to the listing of the <u>USDA Agencies and Offices</u> for specific agency information.