

Rhodiola Rosea Market Opportunities

2024

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NORTHWEST
TRANSITION TO ORGANIC
PARTNERSHIP PROGRAM



Executive Summary

Project Background

The Alaska Food Policy Council (AFPC), in collaboration with Oregon Tilth and the Northwest Transition to Organic Partnership Program (NW TOPP), and Spork Consulting conducted a Rhodiola market research project in early 2024. This work aimed to explore the current state and potential of Rhodiola farming in Alaska, identifying both existing and prospective growers, determining interest and challenges around the organic certification process, and examining the barriers and opportunities within this niche market. The project incorporated market research, two online surveys, interviews with field experts, and a hybrid workshop.

Key Findings

1. Growing Interest and Potential

- There is significant interest in Rhodiola cultivation across Alaska, with potential growers distributed throughout the state including Anchor Point, Wasilla, Anchorage, Fairbanks, Cordova, and the Kenai Peninsula.
- The demand for Rhodiola is increasing globally, presenting an opportunity for Alaska to become a significant supplier, particularly as wild Rhodiola has been recently listed under CITES, limiting its availability.
- Most growers are incorporating organic practices, paperwork and tracking requirements, more so than the financial burden are preventing growers from continuing with or starting the process of becoming a Certified Organic producer.

2. Market and Economic Opportunities

- There is a large demand and a buyer for unprocessed Rhodiola in Alaska.
- Alaska Rhodiola, founded by Dr. Petra Illig, is at the forefront of Rhodiola cultivation and processing in the state. Their business focuses on organic cultivation and direct sales through online platforms, targeting customers in Alaska and throughout the world.
- Expansion plans include developing additional processing facilities and diversifying product offerings to include capsules and skincare products, aiming to create a vertically integrated production system with Alaska produced Rhodiola.

3. Research and Development

- Dr. Jenifer McBeath at the University of Alaska Fairbanks is conducting critical research on Rhodiola suitable for Alaskan conditions, focusing on disease management and optimizing cultivation practices.
- Challenges identified include severe disease outbreaks, the need for uniform plant characteristics, and the complexity of organic certification and international trade regulations.

4. Community and Networking

- The surveys and webinar indicated a strong interest in forming a Rhodiola cooperative or growers' group to facilitate collaboration and resource sharing among farmers.
- There is a clear need for continued education, training, and support to assist new and existing growers in navigating the complexities of Rhodiola farming.

Recommendations

To capitalize on the growing market potential and support the development of Rhodiola farming in Alaska, the following actions are recommended:

- **Enhanced Support and Training:** Provide targeted educational programs and technical assistance to help growers with organic certification, disease management, and market access.
- **Strengthening Community Networks:** Foster the formation of a Rhodiola growers' cooperative to promote collaboration and knowledge sharing.
- **Continued Research and Development:** Invest in ongoing research to address disease management and improve cultivation practices, ensuring the sustainability and profitability of Rhodiola farming in Alaska.
- **Market Expansion Strategies:** Develop comprehensive marketing strategies to promote Alaskan Rhodiola in global markets, emphasizing its unique qualities and organic cultivation methods.
- **Provide additional resources or simplify the process and paperwork requirements of becoming and maintaining Certified Organic certification.**

Alaska can position itself as a leading producer of high-quality Rhodiola, supporting local agriculture and tapping into the growing demand for health supplements worldwide.

Project Background

The Alaska Food Policy Council (AFPC) in partnership with Oregon Tilth and the Northwest Transition to Organic Partnership Program (NW TOPP) contracted with Spork Consulting to conduct a Rhodiola market research project in early 2024. This project was supported through the United States Department of Agriculture (USDA) Transition to Organic Partnership Program (TOPP). TOPP is a program of the USDA Organic Transition Initiative and is administered by the USDA Agricultural Marketing Service (AMS) National Organic Program (NOP). The project aimed to identify existing and interested Rhodiola growers in Alaska and to better understand the barriers and opportunities for Rhodiola farming and market potential in the state.

AFPC is working with NW TOPP to develop programs for Alaskan farmers, ranchers, and food producers who are interested in transitioning to organic practices or enhancing their existing operations. This program has served as a pilot study to understand interest and program need for project partnerships in the future.

Over the course of three months, two online surveys were distributed over social media and direct email, one on one interviews were conducted with field experts, and a hybrid Rhodiola workshop was held at the Seed Lab in Anchorage.



Photo: Jenifer McBeath, Rhodiola farm in Anchor Point

Oregon Tilth and Northwest Transition to Organic Partnership Program (TOPP)

The Northwest Transition to Organic Partnership Program (NW TOPP), in partnership with the Oregon Tilth is a coalition of partners that provide mentorship, technical assistance and support for transitioning and existing organic producers. The broader TOPP program is supported under the United States Department of Agriculture (USDA) and is administered by the USDA Agriculture Marketing Service and the National Organic Program. AFPC is working with NW TOPP to develop programs for Alaskan farmers, ranchers, and food producers who are interested in transitioning to organic practices or enhancing their existing operations.

NW TOPP serves Alaska, Idaho, Montana, Oregon, Washington, and Wyoming. The NW TOPP provides a range of services available to Alaskans currently growing and interested in growing certified organic crops.

These programs include

- Mentorship and mentee opportunities (both parties will receive a small stipend).
- Free one-on-one technical assistance during the transition and certification process, including developing an application and *organic system plan*, understanding the regulations, and ensuring compliance.
- Free navigation and training for understanding and completing assistance programs for certification fees, national conservation programs, and research on organic crop production.
- Technical assistance to complete the *Transitional Production Plan* and help with applying for transitional crop insurance.



Photo: Jenifer McBeath, Male Rhodiola plant in Alaska

Becoming a Certified Organic Producer

There are five steps to becoming a Certified Organic producer. In general, this process will take around six months, but it can take up to a year before a farmer is able to plant their first organic crops. Oregon Tilth and others are available to assist with this process.

1. **Develop an organic system plan.**

This details how an operation will comply with regulations. This plan will need to include all farming practices including tilling, grazing, harvesting, storing, and transport, substances used during any of these stages, monitoring practices, recordkeeping systems, and barriers to prevent contamination.

2. **Implement the organic system plan. Have it reviewed by a certifying agent.**

There are five [certifying agents](#) serving Alaska.

- a. CCOF Certification Services, LLC
- b. Oregon Tilth Certified Organic
- c. Quality Assurance International
- d. Washington State Department of Agriculture
- e. Where Food Comes from Organic

3. **Receive inspection.**

All operations that apply are inspected on site by a certifying agent. These inspections are comprehensive and vary in scope depending on the type of farm or facility.

4. **Have a certifying agent review the inspection report.**

The inspector presents findings to the certifying agent noting observation of practices on the farm or facility compared to the system plan.

5. **Receive a decision from the certifier.**

If an operation complies with the rules, the certifying agent issues an organic certificate. The farm or facility needs to continue to update their plan and an inspection is required at least once a year to maintain certification.

Annual inspectors cost \$70/hr, plus travel time, travel expenses, and per diem. There are currently no inspectors based in Alaska. The USDA Farm Service Agency (FSA) will reimburse up to 75% of the cost of certification through the Reimbursement Transportation Cost Payment (RTCP) program but the application must be completed on an annual basis.

What is Rhodiola?

[Alaska Magazine](#) published an excellent overview of Rhodiola in 2021 and explains that Rhodiola (*Rhodiola rosea*), also called arctic root, goldenroot, and roseroot, was named for the rose-like fragrance of its freshly cut root. As a medicinal plant, its use dates back in China and Tibet thousands of years. This plant thrives in higher latitudes along an arctic/sub-arctic band around the world. Its medicinal use by everyone from Vikings to modern athletes and even Cosmonauts aboard the International Space Station is well documented. The Native Inuit people mix the leaves and buds of rhodiola with seal and whale fat to ward off scurvy and give them energy. As interest in natural remedies grows, Rhodiola continues to be studied for its potential therapeutic applications, potentially offering a natural alternative for individuals seeking to enhance their well-being, especially in markets outside of Alaska.

Rhodiola is an “adaptogen,” meaning it helps people adapt and resist physical and environmental stresses. It has been used to improve athletic performance, endurance and recovery, and mental stamina. The scientific evidence originates mostly from Scandinavia, Germany, Russia, and France with studies going back hundreds of years. More than 200 research studies have investigated rhodiola’s properties in the past 50 years.¹



Photo: Petra Illig MD, Male and Female Rhodiola Plant and Seeds

¹ <https://alaskamagazine.com/authentic-alaska/food-drink/rhodiola-is-all-the-rage-in-alaska/>

The demand for Rhodiola has been steadily growing for years. Because Rhodiola is a slow growing plant, and demand has increased over the years, wild Rhodiola has been heavily overharvested. In May 2024 wild Rhodiola was added to the Convention on International Trade in Endangered Species of Wild Fauna and Flores (CITES) list. CITES is a global treaty to ensure international trade in wild plants and animals is legal, traceable, and biologically sustainable. This listing will drastically limit the primary source of worldwide Rhodiola and the amount of wild harvest Rhodiola available to the market.

While this presents challenges for much of the current market, this provides abundant opportunities in Alaska.

Market Potential

Alaska is home to one known Rhodiola processor. Alaska Rhodiola, owned by Dr. Petra Illig, who is pioneering the cultivation and processing of Rhodiola Rosea in Alaska. Her passion and drive are helping to provide a local market for purchasing raw Rhodiola and highlighting Alaska's potential to become a leading producer of high-quality Rhodiola for the world.

The main growth limitation is supply. Dr. Illig is continually seeking farmers to help fill a near endless demand for Rhodiola products.

Alaska Rhodiola operates with a focus on cultivating and processing Rhodiola Rosea in Alaska's unique agricultural environment. Dr. Illig established an experimental plot in 2009/2010, which has since expanded it into a fully operational processing facility in Anchorage and Anchor Point. Their business model focuses on direct sales through an online store and social media channels, targeting health-conscious consumers and supplement markets.

Rhodiola Rosea is gaining popularity in global markets. Alaska's environment offers ideal conditions for cultivating high-quality Rhodiola, and according to Dr. Illig, potentially positioning the state as a significant supplier in the natural supplements industry.

While Dr. Illig's business model emphasizes organic cultivation practices and sustainable sourcing, which appeal to consumers she and some of her fellow growers have struggled with the complexity of organic certification and international trade regulations, which impact the cost and feasibility of exporting Rhodiola products. Additionally, the industry's reliance on weather conditions and seasonal harvesting presents operational risks that could affect production volumes and profitability.

To capitalize on market opportunities, Alaska Rhodiola plans to expand its production capacity and product offerings. This includes the development of a second processing facility to produce capsules and skincare products, diversifying revenue streams and expanding market reach to support the company's goal of becoming a vertically integrated producer, from cultivation to end point consumer products.

With a solid foundation in Alaska's agricultural landscape and a strategic vision for growth, Alaska Rhodiola is poised to capitalize on the growing demand for natural health supplements while supporting local communities and Alaska's agricultural sector, as long as they are able to procure Alaskan Rhodiola.

What Can a Rhodiola Grower Earn?



- ❖ One pound washed, trimmed root = .20 # dried
- ❖ How big can your roots grow? 0.5 -1 # is common but 2-3 # is attainable.
- ❖ 2023 we paid \$48 pp
 - certified organic
 - rosavins >1.0%
- ❖ EXAMPLE: for one acre
10,000 plants = 1000-2000#
dry \$60,000 - \$120,000

Price is expected to continue to rise

Photo: Slide from Petra Illig's presentation at 2024 AFPC Rhodiola Workshop

Rhodiola Research in Alaska

Jenifer McBeath PhD is a dedicated plant pathologist at the University of Alaska Fairbanks (UAF), who conducts research under the Agriculture Research branch. Her primary focus is on the development of Rhodiola plants suited to Alaskan conditions. Jennifer's research is driven by the goal of identifying optimal Rhodiola lines that can thrive in Alaska's challenging climate, while also shortening the seed growth period. A key aspect of her work involves finding solutions for disease management without resorting to commercial pesticides. Rhodiola in Alaska is plagued by severe disease

flare-ups affecting plants at all stages of growth, but particularly mature plants that suffer from significant leaf loss and nutrient deficiencies which are exacerbated by variable climates.

The economic potential of Rhodiola as a crop is underscored by its valuable secondary metabolites, which are essential for its market value. Dr. McBeath emphasized the urgency of finding effective disease management solutions to facilitate increased production and ensure economic viability and cautioned about too many farmers starting production before disease management has been determined.



Photo: Jenifer McBeath, PhD, Rhodiola Shoot with Unknown Disease B

Dr. McBeath is focused on the intricate lifecycle of Rhodiola, detailing the challenges and delicate processes involved in seed germination, transplanting, and the preservation of root metabolites post-harvest. Her research underscores the necessity of enhancing cultivation practices to improve Rhodiola's adaptability and yield consistency in Alaska. She points out the variability in plant characteristics, emphasizing the importance of uniformity in Rhodiola plants to ensure higher metabolite production and ease of harvest. This involves selective breeding and the meticulous selection of seeds to promote uniform growth and metabolite concentration.

Dr. McBeath's recommendations include further research into disease management, varietal selection, and cultivation practices to optimize Rhodiola production in Alaska's unique subarctic environment.

McBeath emphasizes the importance of organic cultivation methods due to the slow degradation of pesticides in Alaska’s cold soil where pesticides that would normally persist for 34 days in warmer climates will persist in Alaskan soils for three to five years while also bioaccumulating in plants.

While not her focus, she is keenly aware of market strategies, noting the absence of an established market for Alaska’s Rhodiola and the potential for global market expansion for Rhodiola in general. Specifically, Dr McBeath highlighted the need for collaboration with international markets and the development of processing methods aligned with global standards, especially in China where Rhodiola is highly valued.

Dr. McBeath’s research highlights Rhodiola’s promising potential as a high-value crop for Alaska, contingent upon addressing current challenges in disease management, varietal selection, and cultivation practices. Her work underscores the economic significance of Rhodiola’s secondary metabolites and the necessity of sustainable cultivation practices in Alaska’s unique climate. Moving forward, continued research and collaboration with global markets will be pivotal in establishing Alaska as a significant player in the international Rhodiola market, ensuring both economic growth and environmental sustainability in the region.



Photo: Jenifer McBeath, PhD, Diseased Rhodiola Plants in Alaska, 2023

The Future of Rhodiola in Alaska || Webinar

In June, the Alaska Food Policy Council hosted a hybrid webinar to review the results of the project surveys, and dive deeper into Rhodiola disease and lifecycle research, market opportunities in Alaska, and resources for transitioning to Certified Organic practices. The interest around Rhodiola growing was palpable with lively conversations and continued discussions long after the panel ended their presentation. Eight people attended in person and 23 attended virtually. Attendees were from throughout Alaska and represented all stages of Rhodiola growers.

Our panel experts included presenters Sundance Visser with the Alaska Food Policy Council sharing background about the work the Food Policy Council does in Alaska, Melissa Heuer with Spork Consulting reviewing the project survey results, Jenifer McBeath PhD discussed her work around

Rhodiola research and disease concerns she is working through the University of Alaska Fairbanks, Petra Illig MD with Alaska Rhodiola dove into Rhodiola market potential and grower opportunities in Alaska, and Hanna Deacon with Oregon Tilth provided insight on the Organic Certification process and resources available to help with that transition.

The excitement around growing Rhodiola also came with concerns about understanding how to treat or prevent current diseases, identifying the right soil and agricultural land for growing Rhodiola, highlighting the increased demand for Rhodiola on the worldwide market, and the existing market for future growers to sell raw products to in the state. In addition to research and basic cultivation information, attendees identified the need for a Rhodiola growers meeting or group to help connect growers throughout the state. While there is a lot of interest in growing, Rhodiola will still occupy a niche market, with the total number of producers remaining small. Creating a working group, collective, or some other form of regular connection and gathering could help to support and aid in the success of long term Rhodiola production in Alaska.

Watch the [Webinar Here](#).

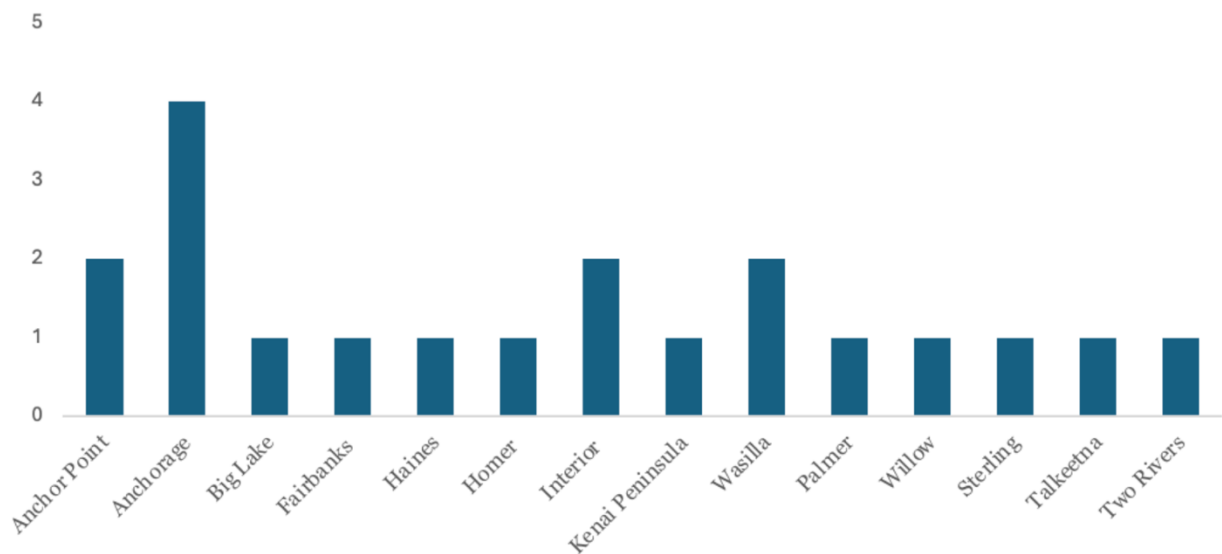


Grower and Farmer Interest || Rhodiola Survey Results

To gauge the interest in growing Rhodiola using either conventional or organic practices and to better understand needs and challenges farmers are facing, two digital surveys were conducted over a two-week period. Overall, there was strong interest in expanding Rhodiola production in the state. Because this is currently a niche agricultural product and the interest and production are spread across so many communities, many current and potential growers are operating in a silo. There is clear interest in expanding production and an even greater need for education and trainings from farm preparation to harvest and processing.

Survey 1 || Aspiring Rhodiola Growers

The Aspiring Rhodiola Growers in Alaska survey revealed a diverse group of 20 individuals with varying levels of farming experience and distinct needs. Respondents are located throughout Alaska, including Anchor Point, Anchorage, Big Lake, Fairbanks, Haines, Homer, Interior, Kenai Peninsula, Wasilla, Palmer, Willow, Sterling, Talkeetna, and Two Rivers. This geographic distribution highlights the widespread interest in Rhodiola cultivation across different climatic zones in the state and suggest a potential for Rhodiola farming to become an agricultural endeavor in multiple Alaskan communities.



Graph 1: Aspiring grower planned farming community

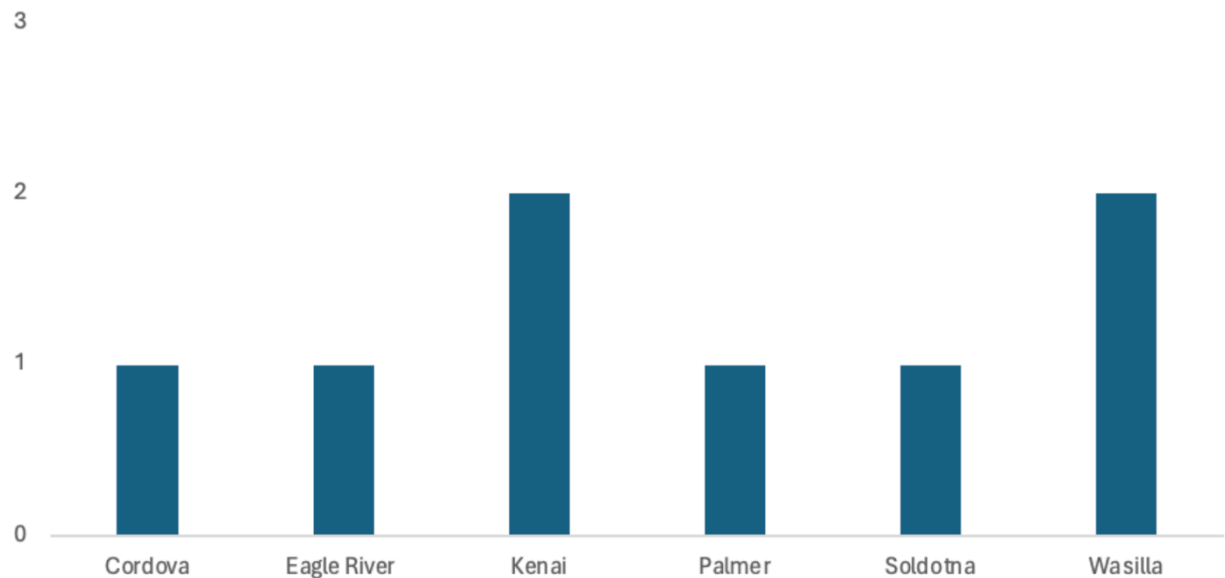
In terms of farming experience, the survey showed a mix of seasoned farmers and newcomers to agriculture. Some participants have over ten years of farming experience in Alaska, bringing a wealth of knowledge and expertise to their Rhodiola cultivation efforts. Conversely, several respondents are not currently engaged in farming at all,

pointing to Rhodiola's appeal to those seeking new agricultural ventures. This blend of experienced and novice farmers could foster a rich exchange of ideas and practices, benefiting the overall success of Rhodiola cultivation in Alaska.

The survey respondents mostly favor organic farming practices, with a preference for certified and non-certified organic methods. The most common needs include detailed information on successful growing and harvesting techniques, funding for purchasing land, seeds, and equipment such as tractors for land clearing. One respondent suggested the idea of forming a Rhodiola cooperative, which could foster collaboration and resource sharing among growers. The willingness of most respondents to share their experiences further underscores a community eager to learn and support one another in the pursuit of successful Rhodiola cultivation in Alaska.

Survey 2 || Current Alaska Rhodiola Growers

The Alaska Rhodiola Grower Survey provided comprehensive data on the demographics, cultivation practices, and resource needs of Rhodiola growers in Alaska. Growers are distributed across various regions, including Wasilla, Palmer, Cordova, Kenai, and Soldotna. Farmers have experience growing Rhodiola ranging from less than two years to over a decade. This variation in experience levels highlights the presence of both new and experienced growers within the community.



Graph 2: Current Producers and Processor Production Community

Most respondents indicated that they employ organic practices, albeit not certified. Specifically, responses such as "organic, non-certified" and "a mix of both" suggest a strong preference for organic farming methods, even though formal certification is not widely pursued. Some growers did express interest in learning more about organic certification. Both surveys show a potential area for educational outreach to promote organic certification and support sustainable farming practices among Rhodiola growers in Alaska.

In addition to cultivation practices, the survey addresses the challenges and resource needs of Rhodiola growers. Respondents identified a range of needs, including growing and planting tips, financial support, market access, and weed management strategies. For example, one respondent mentioned the need for "growing tips/planting tips," while another emphasized "money and markets." Some growers expressed a need for comprehensive support, with one stating they need "everything." These responses underscore the diverse challenges faced by growers and the importance of providing tailored resources to address their specific needs. The data highlights the necessity for targeted assistance to enhance the success of Rhodiola cultivation in Alaska.

The survey also underscores the importance of community and networking among Rhodiola growers. Several respondents expressed a desire to connect with other growers and buyers, indicating a communal approach to overcoming obstacles and sharing knowledge. One respondent mentioned, "Would like to connect with other growers and buyers," pointing to a need for platforms that facilitate these connections. When asked about their willingness to be contacted to discuss their experiences further, most respondents agreed. This openness to sharing experiences can help build a supportive community and foster collaboration, ultimately strengthening the Rhodiola growing industry in Alaska.

Conclusion

The Alaska Food Policy Council's collaboration with Oregon Tilth and the Northwest Transition to Organic Partnership Program has shown strong interest and demand around the potential of Rhodiola farming and promising market opportunities for this adaptogenic plant in Alaska. Despite challenges such as disease management and the complexities of organic certification, the enthusiasm among growers and the supportive community network indicates a strong foundation for future growth. With continued research, technical assistance, and strategic market development, Alaska is well-positioned to become a significant player in the global Rhodiola market, fostering both economic development and sustainable agricultural practices.

Additional Resources

Rhodiola in Alaska

- [The Future of Rhodiola in Alaska: Pathways to Organic Production](#)
- [Alaska Magazine: Rhodiola is All the Rage in Alaska \(2021, September\)](#)
- [Alaska Division of Agriculture: Rhodiola Research Project Summary \(2019, January\)](#)
- [Alaska Master Gardener Blog: Rhodiola Rosea: Medicinal Plant for Alaska \(2017, December\)](#)

General Resources

- [Nation Organic Certification Website](#)
- [ATTRA \(NCTA\)](#)
- [FSA Website - Cost Share Whitepaper from Oregon Tilth](#)
- [USDA organic integrity database](#)
- [Organic Tilth's Policy Recommendations for Organic Certification Cost Share Program](#)
- [Organic Certification Cost Share Program \(OCCSP\)](#)
- [Report to Congress, fiscal year 2022, National and Agricultural Management Assistance, Organic Certification Cost Share Programs](#)
- [AFPC - NWTOPP Page](#)
- [Unlocking the Mysteries of Organic Certification in Alaska: Listening Session and Workshop](#)