

“To provide education and leadership in the conservation and sustainable use of soil- and water-related resources through cooperative programs that protect, restore and improve our environment.”

Natural Currents

HOMER DISTRICT EMBARKS ON SOIL HEALTH STUDY



- New Bridges Installed in the Fox River Critical Habitat Area pg. 2
- Weed Free Gravel pg. 2
- Weed Control for Hay Fields pg. 3
- Processing Equipment for Rhodiola pg. 4
- Weed Free Forage Program pg. 5

The Homer District, with funding from USDA, Natural Resources Conservation Service (NRCS), is planning to complete a 3 year study to help determine the benefits of two conservation practices, cover cropping and reduced tillage, on soil health. We're looking for cooperators who maintain vegetable production in both high tunnel and outdoor environments to participate with trials over the next three years. The demonstration design requires a dedicated treatment block approximately 300 ft² for both high tunnel and outdoor environments studied over 3 year time period.

This study will be promoting NRCS practice Adaptive Nutrient Management, a practice used to evaluate and adjust the management of soil health and nutrient loads for plant production. Adaptive Nutrient Management is available for cost share incentives, similar to that of high tunnels. Interested participants may sign up for this cost share practice to help off-set the cost of soil and plant monitoring over the next three years.

Cover cropping, one component of the soil health study, can have a significant benefit for the soil and plants. Maintaining cover crops helps retain soil moisture, reduces weed and pest issues, improves nutrients and organic matter in the soil, and more. Incorporating cover crops into a garden can be simple and beneficial for any size farm or garden. Cover crops can also greatly reduce farm management by reducing weeding, irrigating, and tillage, as well as reducing costs of organic matter and fertilizer inputs.

The second conservation practice this study will assess is reduced tillage, which produces many of the same benefits as cover cropping, retaining soil moisture, *(continued on pg. 3)*

14TH ANNUAL KP-CWMA WEED WORKSHOP

Board of Supervisors

- Chris Rainwater, Chair
- Emily Garrity
- Otto Kilcher
- Genarita Grobarek
- Paul Castellani

District Staff

- Tara Schmidt, District Manager
- Matt Steffy, Natural Resource Specialist
- Brad Casar, Natural Resource Technician

This year's annual meeting of the Kenai Peninsula Cooperative Weed Management Area (KP-CWMA) is scheduled for Thursday May 5th, 9:00-5:00. This year's event will begin with an invasive species identification, training and certification. This training is tailored for agencies and organizations that have field crews working in undeveloped areas. The focus is to teach best management practices for field techniques to avoid the inadvertent spread of invasive species. The training will teach basic identification skills of priority terrestrial, aquatic, and marine invasives; science-based protocols for minimizing spread of invasives; and response protocols if invasives are detected. The afternoon session will be centered on the Alaska Weed Free Gravel program. Weed free gravel is an increasingly required product for local construction projects. This session will be targeted to contractors, pit operators, and agencies. The day following the workshop the KP-CWMA, in conjunction with DNR and UAF, Cooperative Extension Service, will provide Inspectors Training for individuals interested in certifying gravel as weed free. For more information on either Weed Free Forage or Gravel see articles inside this newsletter

NEW BRIDGES IN THE FOX RIVER CRITICAL HABITAT AREA

In early winter the Homer District completed a project to address a priority resource concern in the Fox River Flats. With the help of a Cooperative Agreement with the US Fish & Wildlife Service, the District addressed several bridge crossings along fingers of Wallace Creek. ORV traffic through the Fox River Flats Critical Habitat Area crosses this drainage system, and the old bridges were no longer suitable to accommodate existing traffic. With the lack of a safe, reliable route, traffic patterns were threatening water quality, native vegetation, and salmon habitat.

The intention was to design bridges that could easily be relocated on an as-needed basis to respond to the fluvial dynamics of Wallace Creek. The bridges are built on toboggan-like skids so that an ORV can easily pull them in either direction with minimal to no ground disturbance. A second innovative feature of the design is fold-up ramps. The ramps are installed with hinges that allow them to be folded easily up on the bridge during transport. The ramps are necessary to provide an approach onto the bridges that minimize potential soil degradation by ORV traffic caused by wheels impacting the surface at the crossing. The hinged approaches will have the added benefit of adjusting to variations with the ground surface caused by extreme tides, weather, or flooding. Additionally a reverse grade away from streams should help lessen surface runoff into the stream.



The District fabricated 5 new bridges and refurbished 2 of the existing bridges along the Wallace Creek drainage. To address channel fluctuations the bridges are designed for movability. They are built on skids, have hook eyes, and hinged ramps.

STRATEGIES FOR MAINTAINING A WEED FREE ZONE

Have you noticed how an infestation of invasive weeds in a new area often coincides with a recent construction project? It is not uncommon for weed seeds and fragments to be transported on equipment from job site to job site. The implementation of best management practices, including cleaning off equipment and avoiding known infestations in transport, will help reduce the impact of this vector. But this will not address the issue of weeds transported with material.

Over the last decade, numerous remote infestations of invasive weeds have cropped up across Alaska, and it took folks a while to figure out how they were getting in. Turns out straw used to bed down dog teams traveling across remote regions were shipped in from out of state, and those straw bales contained noxious weeds. Alaska Department of Natural Resources has responded with a protocol for certifying Weed Free Forage in the state, and some landowners are now requiring use of these products on their lands. This does not mean that no weeds are present, but that invasive weeds were not detected prior to harvest. As this program has expanded, it now includes a certification protocol for Weed Free Gravel (WFG).

Through regular inspections and weed free practices WFG attempts to minimize the probability of seeds being transported in fill material. Keeping gravel pits weed free stops the spread at the source, making invasive management much easier. In a move to proactively prevent the introduction of invasives through new construction practices, agencies such as the Kenai National Wildlife Refuge, Chugach National Forest, and Alaska Department of Transportation have implemented contract stipulations for the use of weed free gravel, straw, and hay within their borders.

During this year's annual Kenai Peninsula Cooperative Weed Management Area workshop (see page 1), there will be a full afternoon of presentations on the history of the program, the economics of invasive mitigation, resources for contractors, and implementation of BMP's. This workshop will target agencies, as well as contractors and producers, in an effort to educate all parties on the application of this program. Increased demand will increase production and increase the value of the products on the market. Please visit www.kenaiweeds.org to learn more. Also, visit the state website at <http://plants.alaska.gov/invasives/weed-free.htm> for more information.

NRCS COST SHARE PROGRAM AIMS TO ASSIST HAY PRODUCERS WITH WEED CONTROL

Have you noticed the steady increase and spread of a little yellow-flowered weed as you drive out East End Road over the past few autumns? This particular weed seems to have a toe hold along the Homer bench, and if it continues to have its way, this plant may colonize the landscape out to the head of bay. This invasive plant, fall dandelion (*Leontodon autumnalis*), can outcompete native and established plants, disrupting food webs and habitat types that local wildlife and local producers depend on. Unlike the common dandelion, this weed blooms in the fall, and thrives after hay fields have been cut, eliminating competition for sunlight. It has become a particular nuisance in pastureland and hay fields, affecting the quantity of production and decreasing forage crop values.

The Natural Resources Conservation Service (NRCS) is introducing a new tool to help landowners to control its impact. This conservation practice, *herbaceous weed control*, is being offered through the Environmental Quality Incentive Program (EQIP) for treatment beginning in the 2017 season.

Treatment for hayfields will take place over 3 years, and can involve mechanical and/or chemical application. Control methods can be completed by the producer or contracted out with certified herbicide applicators. This incentive is to encourage landowners to control the weed by sharing in some of the cost of treatment. Cost sharing rates will vary depending on control methods, but at a minimum are expected to be about \$40 per acre.

Homer Soil and Water has staff that can assist you with developing an integrated pest management, and provide the technical expertise if you do choose to treat your fields. If you would like to manage this weed but do not qualify as an agricultural producer we can discuss other options that may be available.

To be considered for 2017 funding, stop by the NRCS office and fill out an EQIP application by June 15, 2016.



Identification:

- Perennial plant with dandelion-like features
- Leaves are deeply lobed
- Arising from a basal rosette
- Flowers yellow w/ reddish streaks on underside
- Pappus has a single row of leathery hairs

-Impact:

- Spreads quickly in vacant land, roadsides, fields and other disturbed habitats
- Detrimental to hay/pasture lands

(continued from pg. 1) weed control, and improved organic matter). Additionally, reduced tillage helps maintain a good soil structure, the building blocks of your soil. Many vegetable producers in the Homer area are raising two to three successive crops in one season, using intensive tillage and management practices. Conservation practices addressed within this soil health study will help maintain good soil health and crop productivity for intensive vegetable producers.

If you feel that your operation may fit the criteria for this study please contact us for more details on our goals, the commitment required, and information on the cost share available. Contact Brad at 235-8177 x111 or come by the office.

USDA RURAL DEVELOPMENT GRANT USED TO SUPPORT RHODIOLA COOPERATIVE

The Homer District was on the receiving end of a Rural Business Development Grant (RBEG) to purchase processing equipment to assist with the harvest of *Rhodiola rosea*. *Rhodiola rosea* has a high market value as a beneficial, non-toxic medicinal plant that is becoming increasingly popular throughout the world. By cultivating this hardy arctic plant, growers can take advantage of the harsh climate in Alaska and develop a viable and sustainable new agricultural industry. The lack of technologies to process the roots has been identified as an impediment to the growth of this industry. The goal of this project is to obtain necessary processing equipment to help producers to prepare a marketable product and to allow them to scale up appropriately as future harvests increase.

The grant funds allowed the District to purchase and make available three pieces of equipment during this past fall harvest of *Rhodiola*. These include: 1) a vegetable washer modified to clean the irregular shaped roots, 2) slicer/dicer used to slice the *Rhodiola* into small rounds to be dehydrated, and 3) a steel burr mill to be used to process the dried roots into either chips or a powdered form for market. The Cooperative has purchased a trailer to mount the washer on so that it can be mobile with the eventual goal of transporting the equipment to various communities during the harvest season. The equipment was staged at the Plant Material Center in Palmer, AK where members of the *Rhodiola* Cooperative were provided access over a 3 day time span. In all 2,500 pounds of roots were processed, resulting in approximately 550 pounds of dried and powdered product. The final product sold at \$25/lb.



A modified carrot washer designed to clean *Rhodiola* roots after harvest. This washer was designed by GV Enterprises in Palmer, AK. Since the roots are intertwined creating crevices they require much more water to clean.

In addition to increased numbers of *Rhodiola* producers there has been funding through the University of Alaska, Anchorage to research into, and test the plants for both rosavin and salidroside, the compounds responsible for the antidepressant and anxiolytic actions of this plant. These tests will help determine the best time to harvest these plants, thus helping the marketability of an Alaskan crop.

SPRUCE APHID

Our office has received several calls from individuals who have noticed the needles of spruce trees turning reddish brown. This is due to an aphid infestation affecting coastal communities in Southcentral AK. This infestation was initially reported last summer by residents of Halibut Cove, and several reports have since been confirmed in the Homer area. This outbreak is likely a result of mild winter temperatures. Spruce aphids have the greatest impact on trees along the coast. High valued trees at risk should be monitored in late winter or early spring, chances of control are best if caught early. Contact UAF—Cooperative Extension Service for more information on positive identification and treatment options. 907-262-5824.



Did you say Soil Tasting?
Or Soil Testing?

SOIL TESTING SERVICES

With spring is just around the corner we are gearing up for soil testing. Homer District will process soil samples that are dropped off at our office. Samples brought into our office are sent to an independent lab (Brookside Labs) every Friday, and have the results and nutrient recommendations turned around in two weeks.

The cost for this service is \$32.00 for the first sample, and \$20.00 for any additional sample. Please feel free to call our office for instructions on how to take a random soil sample. Or visit our website, under the Natural Resources/Soils tab for a full description of our program. .



“HAY” PRODUCERS

INTERESTED IN ALASKA’S WEED FREE CERTIFICATION PROGRAM

What is Weed Free Forage?

The Weed Free Forage & Straw Certification program strives to reduce the transport and dispersal of noxious or undesirable weeds within Alaska’s landscape. This is a volunteer program whereby forage producers can provide a value-added product by meeting certification standards and participating in field inspections. Current and potential markets for weed free forage and straw include: livestock owners concerned about introducing unwanted noxious plants into their yards, mushers, buyers of feed or bedding for pack animals, or those using erosion control materials. Homer District staff can certify crops up request.

What are the Certification Standards?

Several hay growers have expressed dismay about the possibility of fields passing as “weed free”. Perhaps weed free is a misnomer. Certified weed free products doesn’t mean no weeds—but that when the grower cut their fields there were no viable seed heads. Fields are required to be inspected not more than 10 days prior to harvest so the inspector can verify that potential weeds are not in rosette to bud stage, or boot stage for grass species. The standards allow for fields to be treated for the prevention of seed formation or seed ripening, eliminating the danger of disseminating seeds or their propagation. Treatment methods for fields can include 1) burring, 2) mowing, cutting, or roughing, 3) mechanical methods, or 4) chemicals.

If you are interested in learning more about this program, or if you have fields you would like certified, please call our office for assistance.



SOILS WORKSHOPS PROVES TO BE SUCCESSFUL

In the past few months the Homer District has partnered with UAF Cooperative Extension Service to deliver a series of soil classes. Meeting at the Kachemak Bay Campus on Thursday nights we have discussed topics related to soil science, soil management, and understanding soil tests results. Market farmers, home gardeners, and other producers have come out to the workshops to learn about their soils and possible soil management practices. One course remains, and will be offered **March 24th** on the topic of **Soil Fertility Management**. Understanding soil fertility management can help provide the tools needed for healthy plants and vibrant crops. This session will help answers questions such as “how much compost should I use?” and “can I make my own fertilizer mix”? Contact Brad at 235-8177 x111 to reserve a seat in the class, classes are \$5.

If you missed out on these classes this winter, we hope to make these classes available on a regular basis. Please contact us with input on farming and gardening topics you would like to see discussed in future workshops.

For up-to-date information on District programs, see our home page at www.homerswcd.org

LOOKING FOR INFORMATION ABOUT FARM SERVICE PROGRAMS?

The USDA Farm Service Agency (FSA), County Executive Director, Erin Sturdivant will be in Homer to talk about FSA programs and answer questions you may have. FSA provides farm loans, crop insurance, disaster assistance, and conservation programs to qualifying agricultural producers. The CED can assist with interested participants who need to establish farm records to qualify for USDA programs.

KENAI PENINSULA FOOD HUB IS OPEN FOR VENDOR SIGN-UP

Are you looking for innovative ways to expand your markets? The Kenai Peninsula Food Hub may be just what you are looking for. A food hub is an online cooperative that allows direct marketing by the producers to the consumers. This spring will see the launch of a pilot food hub here in Homer. For more information go to Cook Inletkeeper’s website and then to the Clean water/Local foods tab. Or <http://inletkeeper.org/clean-water/local-foods/hub-vendor-sign-up>.

To find out more about the programs and projects, visit our website at www.homerswcd.org.

The HSWCD Board meets on the second Wednesday of the month at 5:00 pm. We meet at the USDA Service Center, 4014 Lake St., Homer. We welcome all visitors! Feel free to call our office to confirm date & time.

UPCOMING EVENTS & DEADLINES

March 9, 2016 HSWCD Board Meeting 5:00 pm @ USDA Service Center

March 16, 2016—USDA Farm Service Agency County Executive Director will be here for Q&A
2:00-4:00 pm USDA Service Center—4014 Lake St. Homer.

March 19, 2016—Women in Agriculture Conference @ Kenai River Center 7:30– 5:00

March 24, 2016 Soils Workshop 6:00 @ Kenai Peninsula College, Kachemak Bay Campus

April 13, 2016 HSWCD Board Meeting 5:00 pm @ USDA Service Center

May 5, 2016 Cooperative Weed Management Area Annual Workshop @ Cook Inlet Aquaculture Bldg.
40610 Kalifornsky Beach Road, Kenai, AK 99611

May 6, 2016 Weed Free Forage Training and Certification @ Cook Inlet Aquaculture Bldg. Kenai

June 15, 2016 End of 2017 Application Period for USDA—NRCS Environmental Quality Incentive Program

In partnership with USDA-NRCS, the HSWCD is an Equal Opportunity Provider and Employer



4014 Lake Street, Suite 201a
Homer, Alaska 99603

Phone: 907-235-8177 x 5

Email: info@homerswcd.org

Web: www.homerswcd.org

