The Division of Agriculture Activities

July 6, 2016
Find us on the web at:
http://dnr.alaska.gov/ag

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To add or remove your name from our newsletter list click here.

Questions or Comments? E-Mail or call 907-761-3861.

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Director's Note

The growing season is as strong as ever this year with many producers reporting crops up to three weeks ahead of schedule.

June 17th marked four months at the helm of the Division of Agriculture. I was told being the Director would be like "drinking from a fire hose," how true!

On June 30th due to budget cuts we have had to say goodbye to Rebecca Jeffers one of our administrative staff. We will miss her and we wish her well!

We are working at becoming more efficient and mission oriented here at the Division. Our first step is a reorganization. Brianne Blackburn will be coming to the main office to manage our Inspections, Land Sales and Finance sections. Rob Carter will be taking the helm at the Plant Materials Center. I am excited about these changes and what they will mean for the agriculture community as well as the Alaskan agriculture consumer. More changes to follow.

On June 4th Rob Carter and I had the opportunity to join the Mugrage Hay and Cattle Farm in Delta Junction for their Grazing Field Day. It was a great hay bale tour highlighting hundreds of acres of Delta Junction farmland and the beautiful herd of Cattle and Elk that make up Misty Mountain Farm. Many thanks to Scott Mugrage for the invitation to this well attended event.

Did you know the Plant Materials Center supports millions of dollars in agriculture production and sales through the cleaning and certifying of grass seeds? This is just one of the many vital things the Division of Agriculture is doing in support of Alaska's farmers.

On June 30th the arrival of the first Alaska peonies to the Alaska Peony Distributors (APD) pack house at Lake Hood from the Susitna Valley region took place, this is a milestone event. I look forward to working with and learning more about this growing industry. In case you missed it, *Readers Digest* "50 Facts for 50 States" mentioned the peony industry for the Alaska highlight; "Peony farms blossomed from zero in 2000 to more than 200 in 2014."

Due to limited staff, the newsletter will only be a quarterly publication.

Until Next time,

Athur J. Keyes IV

Agriculture Calendar

- Thur., **Juy 14** — **Board of Agriculture & Conservation Meeting.** Division of Agriculture Conference Room. 1800 Glenn Highway, Suite 12, Palmer. 8 am. (Teleconference available). *Details:* here
- Thur., **Aug. 4** — **Alaska Agriculture Appreciation Day at the Farm.** Matanuska Experiment Farm. 1509 S. Georgeson Rd., Palmer. 12-5pm. Details: here

If you have an event that you would like to add to the calendar, please contact Lora Haralson.

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Interested in being a reviewer for the Farm to University/ Hospital mini-grants?

Reviewing grants is the best way to get experience and improve your grant writing skills. If you are interested in being a reviewer contact Johanna.Herron@alaska.gov or call 907-761-3870.

Marketing

Booth space available at the Alaska State Fair

Once again the Alaska Division of Agriculture is partnering with the Alaska State Fair in Palmer to offer a unique opportunity to our Alaska Grown members. Each day of the Fair a 10'x12' space will be available for $50 a day, under the eave of Farm Exhibits, close to the entrance to crops and flowers. The eaves provide cover and all booths are supplied with one 8' table and 2 chairs if requested. Two admissions and one parking pass are included each day. A tent or canopy is recommended. You may apply for any number of days. Rules for the event include:

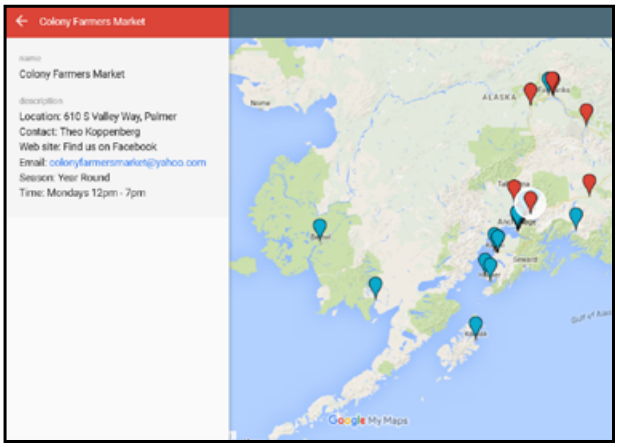
- Products must be Agriculture related.
- There cannot be any prepared food that can be eaten on the spot, except for fruits and vegetables, for sale from your booth.
- Packaged food such as spices, canned jams, and flours can be sold.

For space availability and more information, contact Sheri at sheri@alaskastatefair.org or Pamella at pamella@alaskastatefair.org.

"Meet Me at the Market" interactive farm market map now available on eatlocalalaskagrown.org

The Alaska Grown Program is pleased to announce their new interactive farm market map and launch of the **"Meet Me at the Market"** campaign. The map can be viewed at http://eatlocalalaskagrown.org/farmers-markets/ and includes all farmer's markets and stands in Alaska that shared their information. Farms listed in red are participating in the "Meet Me at the Market" campaign. For information on the campaign where you can win an Alaska Seafood Institute insulated bag containing Alaska Grown prizes and to pick up your Alaska Public Media's Kids Club Reward visit your participating market manager booth while supplies last. See the interactive map for participating markets.

For more information visit http://eatlocalalaskagrown.org/ or contact Johanna.Herron@alaska.gov, 907-761-3870.



Farm to School

Alaska Agriculture Day was Tuesday, May 3rd!

Alaska Agriculture Day is a great way to inspire youth, engage local farmers, and get off to a fun start to your own agricultural connections. There were three communities that won an Alaska Grown prize for their Ag Day activity submissions:

1. In Thorne Bay students presented and marketed their Aquaponic School Grown food to a local business.
2. In Naknek two greenhouses were built to begin growing local veggies for Naknek and King Salmon communities.
3. Second graders from Ticasuk Brown Elementary School learned about Alaska Agriculture and the lifecycle of reindeer.

It was a great week to celebrate and teach kids about agriculture in Alaska. The Division of Agriculture led activities for 12 classes, totalling nearly 350 kids, in the Palmer area. One exciting new strategy we want to share widely is what we did at Sherrod Elementary. This year we started a potato planting activity with their school garden that is low maintenance AND works with the summer break schedule. We start by doing an agricultural lesson with third graders about the certified seed potato program and potato planting. We then plant the potatoes with the students before school gets out. When school starts up again next year we will harvest the potatoes with the new fourth graders and they will sell them for money to use on their field trip! This cycle and activity was inspired by the Galena potato project funded by a Farm to School grant in 2011. We recommend it for any community that struggles with maintaining a garden over the summer and fitting lessons into the school year.

For more information about the Alaska Farm-to-School program, or if you have any questions, contact Johanna Herron at Johanna.herron@alaska.gov or (907) 761-3870.

Fourth graders harvesting potatoes.

Intern Spotlight

Hello! My name is **Nicole Smeenk**, and I am the Specialty Crops to Summer Markets project intern. I am a Natural Sciences major with an emphasis on Environment at the University of Alaska Anchorage. This summer, I will mostly be working with farmer's markets all across the state and I look forward to working with the farmers on a much broader scale. Some of my hobbies include canoening, hiking the mountains, and driving around, exploring our beautiful state.

Greetings! My name is **Kate Smeenk** and I am the new high school intern on the Specialty Crops to Markets project. I recently graduated from Palmer High School and have plans to enter the University of Anchorage in the fall. Some of my hobbies include exploring the outdoors as much as I can and immersing myself in the local farming community. This summer I will be working primarily on increasing the visibility of the Alaska Grown Project and assisting market visibility on social media.

My name is **Ryanne Tyler** and I'm a pure Alaskan adventurer. I was raised in Eagle River. I am currently a full-time student at UAA, seeking a Bachelor's of Science degree in Environment & Society, with a minor in Geological Sciences. I enjoy hiking and exploring the outdoors, as well as learning more about the environment! I'm working with the CAPS program setting up traps for possible invasive beetles and gypsy moths and will be collecting samples from potato fields for disease testing.

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Pest Detection / Inspection Section

What causes potatoes to green?

The answer is: Light

There are two reasons potatoes to turn green:

Sunburn and Greening

Sunburn:

Sunburn is caused by the potatoes not being sufficiently covered by soil in the field. The green color is caused by the development of chlorophyll, which is generally restricted to the layers immediately below the skin. Chlorophyll is completely safe and is found in all plants and is responsible for a plant's ability to make food or photosynthesize. If the exposure to light is prolonged, chlorophyll develops deep into the tissue. Once this occurs, solanine develops which results in the bitter taste associated with eating green potatoes. Solanine if taken in sufficient dosages, is considered poisonous.

The US Grade Standards for Potatoes have strict tolerances for sunburn, therefore, these potatoes are mostly graded out at the farm before they are received by the retail stores!

Greening:

Greening is caused by the potatoes' exposure to white, flourescent lighting in retail stores. Greening develops more rapidly at warm temperatures than cool temperatures.

Greening is probably the greatest threat to potato quality in retail displays. Unfortunately, the white fluorescent lights in most retail stores are among the worst possible for prevention of greening. Displaying potatoes under yellow or green light, or covering the stock to exclude light, are methods by which greening could be reduced, but are not practical. Shielding potatoes from light when not open for business will also help, but may not be an option for most retail stores.

So what can a retail store do?

Limiting the size of the display will help to minimize exposure to both light and elevated temperatures. As the display is replenished, stock should be rotated, with older potatoes placed on top. Poor quality stock should be removed from any display whenever it is detected.

The actions of retail produce handlers largely influence the consumer's impressions of fresh potato quality and so they are a critical link in the supply chain. It is vital that staff is trained in best potato management practices so that the consumer will continue to recognize fresh potatoes as a worthwhile purchase.

(USDA Shipping Point and Market Inspection Handbook, 2008, USDA ARS Market Diseases of Potatoes and University of Lincoln Nebraska Research and Extension Service, Potato Education Guide)

Land Sales & Grazing Leases

http://dnr.alaska.gov/ag/ag_sales.htm

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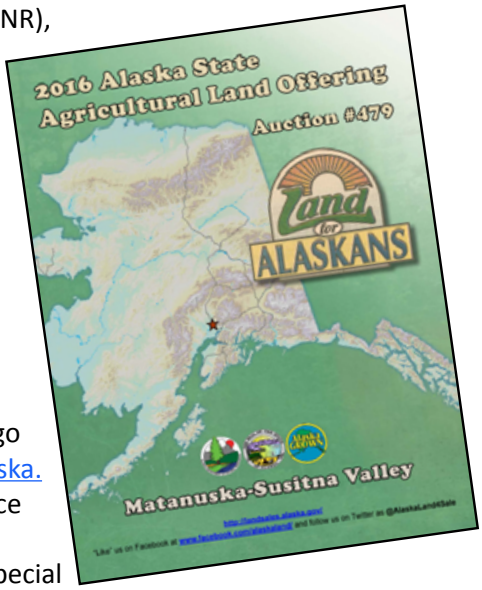
Agricultural Land Sales & Management

Agricultural Land Sale Auction # 479



The Alaska Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), in cooperation with the Division of Agriculture (DAg), is proposing to hold a sealed bid auction for state agricultural land. The sale will include five parcels near Willow ranging in size from 40 to 303 acres, located in the Willer-Kash agricultural project area (ADL 230825). A description of the auction procedures and timeline can be found on pages 2, 17 and back cover of the Auction #479 brochure.

To obtain a copy of the Auction #479 brochure go to http://landsales.alaska.gov/ or http://dnr.alaska.gov/mlw/landsale/479ag/479.pdf. For assistance in obtaining the documents by an alternative method, to request auxiliary aids, services, or special accommodations, contact DNR's Public Information Centers on State work days, Monday through Friday, between 10 am and 5 pm in Anchorage at (907)269-8400 (TDD for the hearing impaired: (907)269-8411) or Fairbanks at (907)451-2705 (TDD for the hearing impaired: (907)451-2770), or go to http://dnr.alaska.gov/commis/pic/ for additional contact information. Individuals who require special assistance must request assistance from the Public Information Center in Anchorage no later than 4 pm, July 7, 2016.

For more information contact Erik.Johnson@alaska.gov or phone (907)761-3863.

Alaska GROWN® Source Book

The 2016 Alaska Grown Source Book is now online!

The Division of Agriculture publishes the online listings of Alaska farms, farmer's markets, CSAs, U-Picks and farm related businesses in response to numerous requests from the public and industry.

To view the Source Book, to be added to, or request corrections to your listing please visit:
http://dnr.alaska.gov/ag/sourcebook/sourcebookindex2016.html

NEWS FLASH

Potato Late Blight reported in the Columbia Basin, Walla Walla County, WA.

June 1, 2016: This is the earliest late blight has been observed in the Columbia Basin. There is generally a correlation between an early detection and an increase in disease incidence and severity. For additional information and to keep up to date with late blight detections at a national level, visit https://usablight.org/.

Plant Materials Center

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Plant Materials Center (PMC)

Plant Materials Center 2016 potato planting

On May 19, 2016 the PMC planted over 274 plots of spuds in the field. In addition to the varieties that they continue to maintain in their clone bank, they have over 110 plots for both first and second year evaluations for varieties that have potential in the Alaskan industry.

In addition to their field planting, the generation zero (G0) certified seed potato production continues in the greenhouses this year as well with almost 1,700 lbs of seed requested across 35 varieties. **This is a 50% increase in orders over last year and over 80% increase from two years ago!** The PMC looks forward to a busy harvest season in both the field and greenhouse.

For more information on the Potato Program at the PMC, contact Rob Carter at robert.carter@alaska.gov.

Bill Campbell named Honorary Life Member to Potato Association of America

Bill Campbell's life has been intertwined with the potato since his first undergraduate experiment at Oregon State University in 1978. Over time, he became the go-to guy for all things potato for the state of Alaska, from providing seed to up-to-date production and pest control information. Among highlights of his 35-year career was creating the Palmer Potato Pageant in honor of the UN International Year of the Potato in 2008. His efforts received front-page coverage from Alaska's largest newspaper, the Anchorage Daily News, as well as an interview with NPR's All Things Considered: http://www.npr.org/templates/story/story.php?storyId=95523385. The event drew about 200 people, many of whom competed in the ugliest potato contest, made potato monsters, recited potato poetry and participated in other spud-centric events. In addition to celebrating the potato, the pageant got three fiercely competitive growers in the same room at the same time for the first time.

"The Potato Man" or "The Potato Guru" as Campbell is widely known, spent 30 years as a Potato Disease Control Specialist with the State of Alaska Division of Agriculture, Plant Materials Center in Palmer, Alaska and is charged with producing disease-tested seed, inspecting certified-seed fields, and helping potato growers improve their production methods. He created a tissue-culture-based certified seed program to provide seed to potato growers, made virus-tested seeds for more than 450 varieties, and helped register pesticides with the Alaska Department of Environmental Conservation, all the while gaining the trust and respect of growers. Bill also discovered a purple-fleshed clone in a true seed planting from the Red Beauty variety, named it Magic Molly after his daughter, and watched in amazement as it caught on as a garden variety.

Campbell has contributed to various international Farmer to Farmer volunteer programs through ACDI/VOCA, CNFA and Winrock International, exchanging technological information with potato growers in Russia, Kyrgyzstan, Kazakhstan, Belarus, Bangladesh and Egypt. He has given annual talks at the Alaska Vegetable Growers Conference, and has been a featured speaker at garden clubs and other venues throughout Alaska.

Forced to choose between the PAA and his son's wedding, Campbell has attended all but one PAA meeting since 1984, and has received the President's Volunteer Service Award four times. He has served as chair of the organization's pathology and certification sections, and as its director, vice president, president-elect and, in 2011, president.

Now retired, he continues to be active in the association, which he considers a vital component of the world's collective potato knowledge. The dissemination of science-based information through the American Journal of Potato Research improves crop production worldwide. The annual PAA meetings provide for professional interaction among the many disciplines devoted to the study of the potato. Campbell plans to continue helping strengthen the association through encouraging increased membership, improving the financial status of the PAA Endowment Fund and augmenting member involvement.

http://potatoassociation.org/about-paa/paa-in-action

Alaska Grown
Celebrating 30 Years

Alaska Grown is celebrating 30 years of Goodness!

Closer.Fresher.Better.

Division of Environmental Health

Calves grow faster when caretaker contact increased

A dairy calves study at the Vienna University of Veterinary Medicine showed that gentle handling and stroking/petting can increase the calves' overall growth rate and improve the animal's interactions with other livestock and humans. The economic benefit is that dairy cows produce more milk as adults if they gain more weight at a young age. Researchers divided the calves into two groups, the first group was stroked or petted on the lower part of the neck for three minutes a day for a period of two weeks after their birth, and the second group was not. The calves especially enjoyed being stroked at this spot, they were calmer, actively approached the caretaker and even had slower heart rates while being handled.

Researchers found that three months after this petting, these calves were less fearful of humans and weighed significantly more than those that were not regularly stroked. Previous studies have shown cows that gained more weight before weaning produced more milk every lactation. The daily weight gain of the stroked calves in this particular study was only about 3-5% higher than that of the control group, but when mature, these adult cows produced about 110 pounds more milk per cow per year.

So spending about three minutes of regular gentle interactions per calf per day for the first several weeks after birth will have benefits to the animals and more profit for the farmer. This is was shown even after dehorning the calves or castration of bull calves, procedures that are associated with pain. These painful procedures disrupt good human-animal relationships previously established through stroking. However, researchers showed that a calf's increased avoidance will subside several weeks after castration or dehorning, as long as there is regular, gentle stroking and handling of the calf.

Evaluating and handling down cattle

Cattle and other grazing species by nature can appear healthy and fit until they are very ill. Farmers must be alert to minor signs of illness and start treatment early to increase the chance of a successful recovery. When a cow is unwilling to get up or stand it is generally the result of a severe illness or injury. So anytime an animal is reluctant or unable to rise, it is important closely examine the animal and work with your veterinarian to make the correct diagnosis and treat them as soon as possible. The most common causes of down cows are mastitis, metritis, metabolic or nutritional problems, and traumatic or musculoskeletal injuries.

Mastitis is an infection of the udder and in severe cases the toxins released by the bacteria can cause a cow to become so ill that it cannot stand. Most commonly this occurs very soon after calving. Cow's may become depressed and have an elevated temperature. These infections can be severe enough that antibiotics alone are not enough to cure the infection. Metritis, a bacterial infection of the uterus, can also release toxins into the bloodstream resulting in similar symptoms of a severe illness. These cases also typically occur several days after calving and often require more intense treatment than just a shot of antibiotics.

Metabolic or nutritional diseases can include several conditions where energy

Environmental Health

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and electrolyte imbalances cause disruption of the nervous system and muscle function that result in severe weakness. Examples of some of these conditions are low levels of electrolytes like magnesium (grass or winter tetany), potassium or phosphorus, in addition to protein-energy malnutrition resulting in acetonaemia or ketosis. Late winter and early spring is a time when cattle may show protein and energy deficiencies because stored hay and forage may have lower nutritional value and poor digestibility. This can be more prevalent in heifers during spring calving since they are still growing themselves and have to supply a lot of nutrition to a rapidly growing calf.

Musculoskeletal problems can include traumatic injuries, such as severe bruising, sprains or fractures, calving paralysis where the nerves are bruised or compressed when a large calf is passing thru in the birth canal, or any other major injury causing severe swelling. There may be an occasional time when you or your veterinarian cannot find an obvious cause, or a combination of problems which are not obvious causing malfunction of the cow's body systems preventing her to get up. These cows may be eating and drinking normally, passing normal manure, and generally appear healthy.

Cattle are big animals and their size makes them difficult to manage and treat when ill or injured. The longer they remain down struggling to get up, the trauma and weight causes further damage to the muscles and nerves. Anytime you have a cow that refuses to get up you should immediately roll the cow up onto her chest so she is sitting up then use hay bales or something to keep her stable. This will prevent bloating and can prevent muscle and nerve damage to the legs on the down side. Then check the cow closely and call your veterinarian. Getting the right diagnosis and correct treatment will prevent further trauma, undue suffering and give the best chance for a successful recovery.

"The longer they remain down struggling to get up, the trauma and weight causes further damage to the muscles and nerves. Anytime you have a cow that refuses to get up you should immediately roll the cow up onto her chest so it is sitting up..."

If you have to move the animal to another location use a sheet of plywood or metal like a sled, roll the cow on, then pull the make shift sled to avoid any further trauma to the cow. In some cases the cow will not get up right away after treating her, in these cases you should roll the cow a few times a day so she is not laying on one side too long and make sure the cow has access to fresh feed and water. Use feed and water troughs that are flexible (rubber), shallow, and placed close to the cow's head.

Down cows are big problems requiring fast action to get the proper treatment and prevent any further injury to the animal. These cases can be frustrating and the cows often will need a lot of care and extra time to fully recover.

Reindeer program offers animal husbandry course

The University of Alaska Fairbanks Reindeer Research Program offered an intensive animal husbandry course in May to six residents of Stevens Village. The Stevens Village tribal council already has a 2,000-acre buffalo farm south of Delta Junction with 123 animals, but it is considering adding reindeer.

"They're way easier to manage," said Steve Hjelm, the farm's on-site manager, who attended the session at the Fairbanks Experiment Farm. Buffalo are wild animals, he notes, and difficult to manage.

Hjelm said Stevens Village is very interested in the idea. "There's a higher demand for reindeer than beef or buffalo."

While in Fairbanks, the group attended educational sessions to learn about reindeer feed and nutrition, first aid, tagging, calving, halter training, herd handling, recordkeeping, health assessments and meat production. They also viewed reindeer operations at the farm and observed as reindeer were herded, handled and weighed and their hooves trimmed.

Reindeer Research Program Manager, Greg Finstad, said Stevens Village is looking for different ways to help feed the community since its subsistence harvest is declining. The Tanana Chiefs Conference, Reindeer Research Program, and the University of Alaska Anchorage are also generating an economic feasibility study in conjunction with the hands-on experience.

Finstad taught sessions to the Stevens Village group, along with program staff George Aguiar, Darrell Blodgett, Jennifer Robinette, and Erin Carr. "We wanted to give them a practical experience to make a more informed decision whether to get reindeer," he said.

Finstad said the program plans to give the farm four female reindeer this fall to gain some more experience with the animals. Sometime this summer, he will meet with representatives from the farm to go over the follow-up details for feeding and husbandry.

Caption: Roberto Burgess and Steve Hjelm look on as Greg Finstad, right, talks about weighing and handling reindeer. Erin Carr and George Aguiar help manage the reindeer.

Submitted by: Debbie Carter, Public Information Officer for the UAF Cooperative Extension Service.

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