



ST. JOHN VALLEY SOIL AND WATER CONSERVATION DISTRICT

... Working for you to help sustain Maine's abundant natural resources since 1942

FALL 2016 NEWSLETTER

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**USDA Natural Resources
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ERIC GIBERSON, District Conservationist
 GREG CIRONI, Soil Conservationist

**USDA LOCAL WORKING GROUP
 MEETING TO BE HELD IN
 DECEMBER**

The U.S. Department of Agriculture Local Working Group, serving the St. John Valley area will meet on December 6, 2016, from 10:00 a.m. till noon. The meeting will be held at the USDA Service Center at 139 Market Street, Suite 106 in Fort Kent.

The Local Working Group is being convened by the St. John Valley Soil and Water Conservation District. The Local Working Group will assist the N.R.C.S. District Conservationist in determining the resource priorities for the St. John Valley.

The meeting is open to the public. If you have any questions, or require special needs please call (207) 834-3311 Extension-3.

All programs and services of the Soil and Water Conservation Districts and the USDA are offered on a nondiscriminatory basis, without regard to race, color, national origin, sex, religion, age, disability, political belief, gender identity, sexual orientation, or marital and familial status.

Meetings of the SJVSWCD are generally held on the 3rd Tuesday of each month.

The public is welcome to attend. Please contact the District if special Accommodations are needed.

If you have any questions about how the SJVSWCD can help you with conservation concerns, please contact the District office in Fort Kent.

Phone: (207) 834-3311, x-3

E-Mail: sjvswcd@gmail.com

MESSAGE FROM ERIC GIBERSON

I would like to take this opportunity to personally invite you to the Local Work Group meeting being held in December to participate in a discussion about EQIP priorities for 2017 and 2018. I will be giving a brief overview of how EQIP has historically been delivered in the St. John Valley, and an update on EQIP for the State of Maine.

We will then discuss issues related to local fund pools to address priority resource concerns, and the relevant ranking questions associated with these local fund pools. Please RSVP with the St. John Valley SWCD so that we can make appropriate accommodations for seating here at the Fort Kent Field Office.

I look forward to this opportunity to discuss our local priorities for conservation, and how to best deliver EQIP to private landowners in the St. John Valley.

Eric Giberson, District Conservationist

WHAT IS THE ST. JOHN VALLEY SWCD?

The St. John Valley SWCD is one of thousands of SWCD's around the country, each governed by a volunteer Board of Supervisors. Our purpose is to use and coordinate all available technical, financial, and educational resources to address the needs of local land owners and users for the conservation of soil, water and other natural resources. In addition, we work with and assist governmental agencies and non-profit organizations.

Our Mission: *“To provide local landowners, land users, and other individuals and organizations with the information, education, and technical assistance they need to help protect and enhance Maine’s natural resources and to use them wisely. The St. John Valley Soil and Water Conservation District seeks to foster and encourage the development of an enduring land stewardship ethic among residents of the St. John River Valley.”*

We strive to accomplish this by hosting conservation field days, workshops and related demonstrations throughout the Valley. In addition, we provide a link to the invaluable technical services provided not only by the Districts themselves, but also by such federal agencies as the Natural Resource Conservation Service (NRCS) and Maine DACF (Department of Agriculture, Conservation and Forestry).

As part of the Maine Association of Conservation Districts (MACD), we also enjoy working with the next generation by hosting the Envirothon, and making classroom presentations to students of all ages in an effort to engage them in the wise use of the nation’s natural resources. We can do even more with your help! As a volunteer, a supporting member, or a sponsor of a soil and water conservation project, every step you take toward conservation is one step forward to a more sustainable future!

The St. John Valley SWCD is working for you and your community! Let us know how we can better serve you.

PROVIDING LOCAL ASSISTANCE

- Workshops
- Grant development
- Link to other governmental agencies and programs
- Topographic maps, aerial photographs, marking flags, tree and shrub sale
- Rental items including: skidder bridge, grass seeder, tree marking gun (with paint)



We are now a drop off location for old rechargeable batteries.

- * Nickel Cadmium
- * Lithium Ion

Keep old rechargeable batteries out of our landfills, and use our drop off service to send them out to be recycled. We currently do not accept alkaline, or general use batteries.



SJVSWCD MEMBERSHIP DUES FOR CALENDAR YEAR 2017

NAME: _____

ADDRESS: _____

TOWN: _____ ZIP: _____

EMAIL: _____

PLEDGE AMOUNT:

Valley Friend.....\$25.00

Valley Steward.....\$50.00

Valley Patron.....\$100.00

Valley Visionary.....\$250.00+

Other_____

Please return this form with your check payable to St. John Valley Soil and Water Conservation District, 139 Market Street, Suite 106, Fort Kent, ME 04743



Use of Cover Crops in Three Year Potato Rotations

Our thinking has been changing quite rapidly in production agriculture with regards to preventing erosion, and reducing nutrient and sediment loss from crop fields. Our focus has shifted to promoting overall soil health. Our soils are being viewed as a complex living organism that contain soil minerals, organic matter, water, nutrients, living micro-organisms, plants and animals. As soil health increases, soil erosion and nutrient loss to the environment will decrease.

A healthy soil is composed of an active population of microorganisms that builds soil structure to provide adequate pore space for water, air and plant nutrients to infiltrate the soil profile. The basic strategy for building soil health involves three principles: 1) striving to keep the soil covered with living or decomposing vegetation at all times, 2) the presence of living plant roots as part of the soil biology year-around and 3) minimizing soil disturbance from activities such as tillage and equipment traffic.

Implementing a strategy to build soil health as part of a potato production system will often require an increase in the length of the crop rotation, a reduction in tillage, and compaction during the rotation and establishment of various cover crops during the rotation. Potato rotations in the St. John Valley have traditionally been on a two year cycle with a year of potatoes followed by a year of oats, often under seeded with clover or ryegrass. The oats are harvested in August as a cash crop, the clover or ryegrass is allowed to grow to put on biomass and then moldboard plowed, or chisel plowed in the late fall in preparation for planting of the potato crop the following spring.

Potato producers in the area have been changing their management to allow for a 3 year rotation with cover crops. A soil building crop rotation can have many components, but could look something like this: 1 year of oats inter-seeded with a perennial clover/ryegrass cover crop left un-tilled in the fall; 1 year of clover/ryegrass hay moldboard plowed in August and seeded to a winter cover crop of oats or Aroostook Winter Rye 1 year of potatoes with a straw or hay mulch applied post-harvest in October to protect the soil from water erosion.

There are management challenges to growing potatoes in a three year rotation. A larger land base is required to offset the clover/ryegrass year of the rotation where potatoes would normally be planted in the two year rotation. Management of cover crop and mulch residues in the spring of the year has delayed tillage ahead of planting. Producers have also expressed concerns about the time it takes for cover crop residues to decompose in the soil after being plowed down and the potential need for extra fertilizer to offset the nutrients required to decompose cover crop residues.

However, the benefits of potatoes in a three year rotation with cover crops outweigh the management challenges. Growers have indicated that overall quality of the potato crop has increased under a three year rotation along with increases in yield. Water is infiltrating into the soil with less ponding, and less runoff and overall soil moisture has improved when droughty conditions occur mid to late season in the potato year. These factors coupled with reductions in soil erosion and sediment/nutrient load into surface waters make these new rotations a win-win for sustainable potato production, and soil and water conservation in the St John Valley.

Eric Giberson, District Conservationist



RED CLOVER



WINTER COVER CROP OF OATS



POTATOES IN 3 YR ROTATION



St. John Valley SWCD
139 Market Street, Suite 106
Fort Kent ME 04743



RETURN SERVICE REQUESTED

Prepared by: St. John Valley SWCD

NEW PROJECTS TO MANAGE WHITE-NOSE SYNDROME IN THE BAT POPULATION

Dr. Jeff Foster at New Hampshire University seeks to reduce fungal load in infected bat hibernation sites (such as mines) by using an environmental cleaning agent, chlorine dioxide. This compound is already widely used to sanitize fruits, eggs, and drinking water. By reducing the amount of *Pseudogymnoascus destructans* (Pd) in infected mines, this research aims to decrease the number of bats developing WNS in areas where the fungus is already present. A second project, proposed by Dr. Maarten Vonhoff at Western Michigan University, will field test the efficacy of using chitosan (a natural biopolymer) to treat bats in the wild, and increase the survival of bats exposed to Pd. Dr. Craig Willis at the University of Winnipeg in Canada, will test the safety and efficacy of two anti-microbial and enzyme inhibitor treatments for WNS. If these tests are successful, these treatments would provide new tools to help bats survive exposure to the deadly fungus.

Source: Bat Conservation International



The Lake Volunteer Monitoring Program is looking for volunteers. VLMP requires someone to go out every other week during the summer (or ice free period) and collect a secchi disc reading (Transparency) and in some lakes dissolved oxygen and temperature. VLMP provides all the equipment and training. The following lakes are in need of volunteers: Long Lake, Mud, Cross, Square, Eagle, Black, Daigle, and St. Froid. If anyone is interested in becoming a volunteer, please use the contact information below.

The Maine Volunteer Lake Monitoring Program
24 Maple Hill Road
Auburn, Maine 04210
Phone: 207-783-7733
Email: vlmp@mainevlmp.org

COMMUNITY GARDEN OPPORTUNITY

If you have an interest in taking part in a Community Garden in Frenchville, please contact the District today!! 207-834-3311
X-3 E-mail sjvswcd@gmail.com

