

# Farmland & Wildlife

The Delta Farmland & Wildlife Trust Newsletter

Vol. 14, No. 1 August 2008



*15 Years  
of Land  
Stewardship*

In the early 1990s a group of farmers and conservationists with the help of UBC and the Corporation of Delta founded the Delta Farmland and Wildlife Trust. Their vision was a vibrant and extensive agricultural area where good farm stewardship contributes to soil conservation and the production of diverse economically viable crops that are maintained in a sustainable rotation while supporting and enhancing wildlife habitat so that future generations can value, enjoy, and benefit from locally grown foods and the great diversity of wildlife present today. Since then, our organization has proven itself to be a valuable model to improve agricultural productivity while simultaneously enhancing wildlife habitat capacity.

The key to our widely recognized success has been our focus on cooperative partnerships with farmers, other conservation organizations, three levels of government, private sector interest groups and numerous funding agencies. The resulting synergism has contributed to improving the farmland resource through soil and wildlife habitat conservation. For instance, over 50,000 acres of winter cover crops have been supported since 1990 and an average of 500 acres of grassland set-asides annually since 1996.

Farmland of the Fraser delta is an amazing resource and one worth protecting for our community and certainly for the sake of our children. The DF&WT, with the continued help of our partners, will be working hard to maintain our existing stewardship initiatives and develop additional programs in response to new opportunities over the next 15 years and beyond. Thank-you, to all of our supporters for making our first 15 years so worthwhile. ✎

## **Crop Rotations - a cornerstone of sustainable agriculture**

Have you ever looked at a satellite image of the Fraser River delta? Within it you will see a patchwork of fields displaying various shades of green during the growing season. The shades represent different crop types and these typically change from time to time on individual fields. This change, or rotation, is important for many reasons. In fact, crop rotation is one of the cornerstones of sustainable agriculture. It is also a key tool in maintaining the wildlife habitat capacity of farmland over the long term.

Individual crops grown in rotation serve different roles. Food crops like potatoes, beans, strawberries, sweet corn, cabbage, turnips, and peas are destined to end up on our dinner plates. Some crops, like forage grasses and silage corn are fed to livestock before being converted into something that we eat, wear or use in some other manner. Other crops are grown for the benefit of soil fertility and wildlife habitat capacity. While their roles may be different, each crop grown in a rotation is important to the farm and the greater ecosystem.

Good crop rotations can minimize the build up of pest insects and pathogens. If a specific crop is planted on the same field over and over, pest populations may grow to economically damaging levels. Crop rotations also help in maintaining soil fertility because different crops have varied nutrient requirements. Over time, intensive berry and/or vegetable production can deplete soil organic matter and nutrients. By rotating a field into forage grass and clover or into a grassland set-aside, important components of soil health can be replenished. By maintaining a variety of crops in rotation on the landscape of Delta, farmers are contributing to the overall biodiversity and stability of the Fraser River ecosystem.

Market forces play a big role in what crops can be planted in a rotation and may limit options that farmers have for promoting soil fertility, managing pests or providing wildlife values. Some vegetable crops are grown repeatedly over many years because there are no alternative crops that can keep farm economics in the black. Long-term crops that are profitable such as blueberries and cranberries are displacing crop rotations that incorporate grass and grain crops. Low livestock prices and profit margins have resulted in farmers having to sell off livestock without replacement and thereby removing the direct need for forage crops on their farms.

Consumers should be aware of how their food purchases affect local farms. If agriculture is to remain part of the equation for a sustainable region, then the region must support the production of crops grown in rotation by paying farmers a fair price for their products and efforts. Delta farms have the capacity to grow everything from artichokes to zucchini under a system that is economically viable, socially acceptable and environmentally responsible particularly if the community stands behind them. By supporting local farms through careful selection of produce at grocery stores or by buying direct from the farm you are reducing your ecological footprint and contributing to the conservation of fertile farmland and wildlife habitat. A good crop rotation goes along way to making farms and our community more sustainable. Just a little food for thought. ✎



*Bean crops grown on the delta and frozen within hours of being harvested are likely more nutritious than those harvested elsewhere and shipped to our region to be sold as "fresh" produce.*

# The Greenfield's Bulletin

DF&WT's Winter Cover Crop Program

To better understand the relative value of winter food types available to waterfowl our biologists spent some time studying waterfowl habitat use on several farms. We wanted to determine if cover crops (specifically winter wheat) were acting as effective lure crops to divert birds away from economically important hay fields.

Using counts of waterfowl faecal pellets as an indication of use, we discovered that over the course of winter, dabbling ducks made extensive use of winter wheat, especially in the late fall and early winter. However, presumably as winter wheat was depleted, the ducks also fed on hay fields.

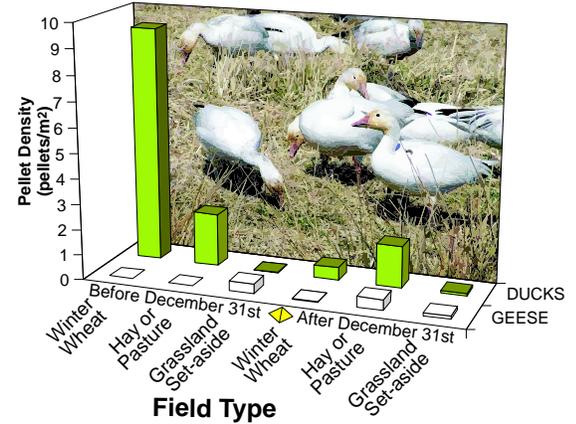
Snow geese made less use of winter wheat cover crops than dabbling ducks, probably because their robust bills allowed them to feed on unharvested potatoes instead. The geese began grazing perennial forage grass in the late winter and early spring and they eventually also fed in first year grassland set-asides.

These results have important implications for cover crop management. Cover crops can provide a valuable food source for wintering waterfowl but may not last the entire winter, forcing waterfowl to

graze other crop types like hay fields.

In recent years the acreage of cover crops has decreased. The reduction in cover crops can be attributed to a variety of controllable and uncontrollable factors. How this has affected waterfowl feeding distributions is unclear, but it likely means that perennial hay fields may in the future be subjected to higher grazing pressure. 🦆

*Duck and goose use of three grass habitat types found at the western edge of the Fraser River delta during winter 2007/08*



## Co-operators!! - Interim Rate Increase for Cover Crops

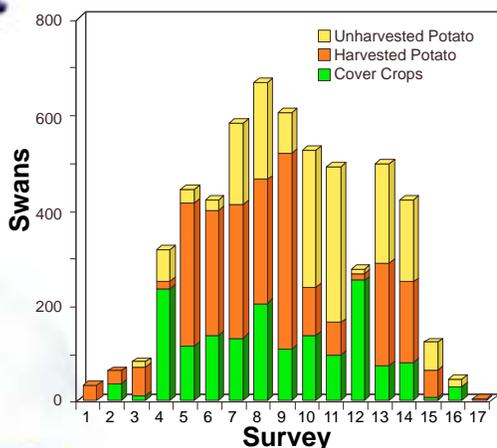
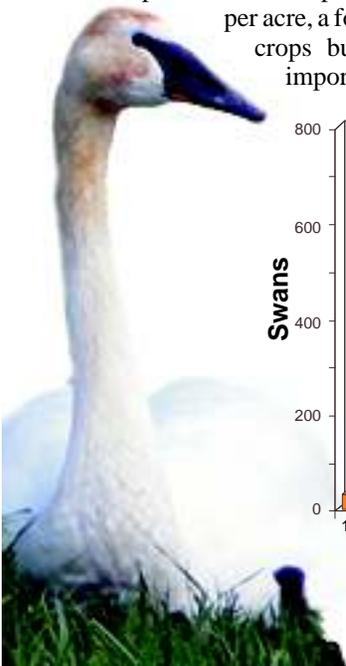
We are in the process of restructuring the Greenfields Program to improve its effectiveness. Part of this process will include an adjustment to the cost share payments, however the analysis required for this has not been completed. Since 1998 the rates for winter cover crop cost share payments have remained unchanged at \$45/acre. For the 2008/09 season the rate will change to:

**\$55/acre for cover crops planted by August 31st and \$50/acre for those planted thereafter.**

Full payment will remain, as before, contingent on sufficient funds being available. If cover crop acreage exceeds 3,400 acres these new rates may need to be prorated. A new cost share program will be unveiled before the 2009/10 cover crop season. If you have not received a Winter Cover Crop information package including the 2008/09 agreement forms from our office, please call and we will send one out to you.

## Swans Stock up on Starches

BCIT students Xiaojun Song and Puru Shrestha spent the winter of 2007-08 studying the distribution of swans found on upland areas on the Fraser River delta. Their data summarized in the graph below show that winter cover crops continue to be important landscape features for these large waterfowl. Although the majority of swan detections were associated with potato fields (both harvested and unharvested), almost 30% were on winter cover crop fields. Unharvested potato fields can provide 17 tonnes of energy rich tubers per acre, a food resource that dwarfs that of cover crops but does not likely provide all the important nutrients required by wintering



*Trumpeter swan population trend and habitat use on farmland in Delta during the Winter of 2007/08*

or staging swans.

Potato fields and cover crops were used throughout the winter. The relative importance of cover crops increased when the ground was frozen (survey 12). Subsurface potatoes are inaccessible during extended periods of freezing because grubbing through frozen soil is, presumably, energetically too expensive for trumpeter swans. Jun and Puru's data further indicate that swans tended to use harvested potato fields early in the winter and then generally switched to unharvested potato fields late in the winter. This could be explained by gradual over winter harvested potato residue depletion, a change in the nature of the subsoil tubers making them more easily detected or accessed by swans or a combination of both factors. 🦆

## Grassland Set-asides provide additional benefits

We have known for years that habitat provided by our grassland set-asides has benefitted small mammals, hawks, owls, herons, and many songbirds. Insect and spider densities and diversity are also expected to be high, although, to date, we have not conducted any formal invertebrate surveys.

Agricultural benefits include improved soil productivity, the possibility to transition to organic production and a suitable grass crop as a fallow period in a rotation. We now know that apiculturists can also benefit from our set-aside program. Beekeepers can

*cont. on page 3*



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extract high quality honey from hives located within or near second and third year-old set-asides. Many set-asides of these age-classes have dense canopies of double-cut red clover that provide decent mid-to late-summer nectar and pollen sources. Set-asides with some blackberries along field margins are particularly productive. The integration of set-asides in hive movements is an option for providing

local beekeepers with nectar and pollen sources after commercial berry crops have been pollinated early in the season.

Don Cameron (Westham Island Apiaries) has been placing some of his hives near set-asides for three years and he thinks that set-asides which are 20 acres or larger can be useful in producing late season honey for extraction and/or to prepare hives for the over-winter period. 🐝

### Summer Solstice Soiree was Sensational and Successful

A swarm of volunteers, directors and staff worked feverishly to put the final touches on this year's Summer Solstice Barbecue transforming a century-old barn into a dining room. Their efforts were rewarded when close to 350 supporters of the Delta Farmland and Wildlife Trust arrived and made the evening a resounding success. The fundraiser, hosted once again by Noel and Val Roddick, has become an important source of funds for our Trust. Many supporters including numerous local and regional businesses donated close to \$47,000 in products and materials for auction and consumption at the event. Bruno Marti and a bevy of other chefs worked to prepare an exquisite country BBQ for an appreciative and generous crowd.

All in all the Trust raised over \$60,000 in support of our programs.

Thank-you to all of our supporters for making the event so successful.

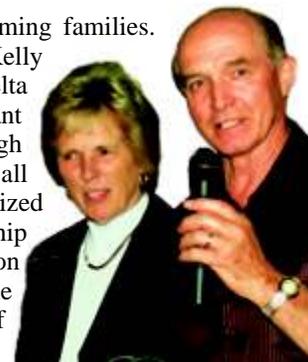
During the evening the DF&WT Service and Stewardship Awards



Jane and Brent Kelly accepted the DF&WT 2008 Service Award in recognition of Kelly Farms' commitment to soil conservation

were presented to two deserving farming families.

The Service Award recognized the Kelly Family's long-term commitment to Delta farming and their recent and significant impact on the farmlands of Delta through the levelling service they offer to all farmers. The Hammings were recognized for their exemplary farm stewardship practices and their consistent integration of relay cropping on their farm since the Trust implemented relay crops as part of the winter cover crop program. 🐝



Ann and Martin Hamming (and some of the next generation of Hammings) were on hand to receive the DF&WT 2008 Stewardship Award

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### Delta Farmers' Institute Recognized for Century of Work

Premier Gordon Campbell was on hand at the Delta Farmland and Wildlife Trust Summer Solstice Fundraiser to honour the Delta Farmers' Institute (DFI) in recognition of over a century of dedication to farming in Delta.

"As our Province celebrates its first 150 years, we are also celebrating the enduring history of farming in this region," said Premier Campbell in his address from the seat of a 1928 John Deere Tractor. He added, "It's fitting that we are able to present the award at the home of Val Roddick, Parliamentary Secretary for Agriculture Planning, who has been and will continue to be a strong supporter of B.C. agriculture."

Traditionally, Century Farm Awards have recognized pioneers whose farms or ranches have been in the same family

for 100 years or more. The program was recently expanded to recognize agricultural Institutes and Associations that have been active for over 100 years. Each Award celebrates the resiliency of B.C. farmers and the economic strength and diversity of the industry. The DFI was established in 1898 to share common interests and goals of Delta farmers. The DFI continues to be the voice of agriculture, actively pursuing the concerns and positive development of agriculture for its 80-plus members today.

Five DFI Presidents, including

John Savage, current President and former BC Minister of Agriculture, were present to receive the Award. While accepting the award John Savage said, "We are proud to have been in operation for over 100 years, and we are honoured to be recognized with the Century Farm Award. I'm glad to see that the Ministry understands the value of organizations such as ours to the agricultural industry."

This Award has been integrated with the Ministry's new Agriculture Plan, acting as a reminder of our past and guide for future farming success. "The new AG Plan... strongly supports planning for the next generation of farm families," said Roddick. "Century Farm Awards showcase just how highly we value those who produce our food, and we want more youth in B.C. to consider a rewarding career within agriculture as a viable option."

The new Ag Plan also recognizes that farms provide other non-market environmental goods and services important to the sustainability of our communities. It seems fitting that DFI has been instrumental in promoting these farmland benefits as part of their role with the Delta Farmland and Wildlife Trust for the last 15 years. Clearly, the DFI can be considered innovative and progressive in their approach to farming. 🐝



Hugh Reynolds, Jack Bates, Premier Gordon Campbell, Ken Bates, Peter Guichon, Val Roddick, John Savage and John Gourley with the Century Farm Award presented to the Delta Farmers' Institute



# Wildlife Tidbits

by John Hatfield

## The Grass can be Greener on the Other Side

After many years of being involved with wildlife management, I have learned that various farm management practices can have striking influences on animal behaviour. Working at the Alaksen National Wildlife Area gave me the opportunity to carry out many small experiments that examined wildlife responses to seemingly simple manipulations. One such experiment related to the influence of fertilizer application on foraging patch selection by wintering waterfowl. After conducting soil analysis, I determined that fertilization of a hay field would be beneficial to increase production. I chose to fertilize half the field to see what effect the treatment might have. Later that fall I observed snow geese flying into the field to graze on the overwintering hay crop. Initially, it appeared as though the family groups distributed themselves somewhat randomly across the field, but it became apparent that the geese definitely preferred one side. Over several hours they gradually walked or took short flights to the fertilized portion of the field. I'm not quite sure what cues the birds were using, but they chose to forage on the fertilized side of the field, presumably because the forage there was of higher quality. 🐦

## Signs of the time

It seems that local produce is receiving increased recognition in local markets. It is also being promoted through a number of highly visible signs throughout the lower mainland. BC Fresh, the Corporation of Delta and DF&WT have added billboards and information signs to the landscape in Delta in an effort to remind people that produce is grown locally and that by supporting local farmers our whole community benefits. Keep an eye out for them next time you head out to get groceries and remember to make the effort to buy local. 🐦



## Directors and Staff

Mary Taitt (Chair)	John Malenstyn
Noel Roddick (Vice-chair)	Anne Murray
Don Mark (Treasurer)	Hugh Reynolds
John Hatfield (Secretary)	Edward van Veenendaal
Margaret Paterson	Office Co-ordinator
Markus Merkens	Wildlife Co-ordinator
David Bradbeer	Agriculture Co-ordinator

*Farmland & Wildlife* welcomes articles and letters. If you would like to contribute your agro-wildlife story please let us know. For more information or to be put on our mailing list, contact us at the addresses or telephone numbers below.

## visit us at.. a day at the farm 2008

Delta Farmland and Wildlife Trust in cooperation with Westham Island Herb Farm will once again give folks an opportunity to reconnect with agriculture. Come and learn about the many benefits that farmland provides to our community. We are expecting between 30 and 40 exhibitors including agriculture commodity groups, conservation groups, and government agencies to be present. Farmers and other experts will be on hand to answer any questions you may have about farming. Fun and educational for the whole family. You may be surprised at the diversity of agriculture within the region. It really doesn't get any better than locally grown. Hope to see you at "Day at the Farm 2008." 🐦

**Saturday September 20th, 2008**  
**10:00 am - 4:00 pm**  
 Westham Island Herb Farm  
 4690 Kirkland Rd.  
 Westham Island, Delta  
 for info call our office  
 (604 940 3392)

*Words Worth* "Having to squeeze the last drop of utility out of the land has the same desperate finality as having reading.... to chop up the furniture to keep warm." - Aldo Leopold, A Sand County Almanac, 1949



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**Delta Farmland and Wildlife Trust is a non-profit, charitable society whose mission is to promote the preservation of farmland and associated wildlife habitat in the Fraser delta through sustainable farming and land stewardship.**

## Your donation will work for Farmland and Wildlife in Delta

Yes! I would like to contribute \$ \_\_\_\_\_  
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*Thank-you for Your Support!*

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