Sustainability Newsletter

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June 2016

The Year of Pulses!

2016 is being recognized as the International Year of Pulses. What are pulses? They are a subgroup of legumes & are plant species members of the *Leguminosae* family (commonly known as the pea family) that produce edible seeds which are used for human and animal consumption. Only legumes harvested for dry grain are classified as pulses. Legume species when used as vegetables (e.g. green peas, green beans), for oil extraction (e.g. soybean, groundnut) and for sowing purposes (e.g. clover, alfalfa) are not considered pulses.

In this issue:

Pulses are important for a number of reasons. Eating pulses regularly can improve human health and nutrition because of their high protein and mineral content. Including pulses in intercropping farming systems and/or cultivating them as cover crops enhance soil fertility and reduce dependency on chemical fertilizers by fixing nitrogen and freeing phosphorous, thus contributing to a more sustainable crop production system. Pulses are also important for sustaining and maximizing production in pulse-cereal crop rotations. In such rotations, subsequent cereal yield and crude protein concentration can be increased due to the residual nitrogen provided by the previous pulse crop.

How many varieties of pulses exist? Although the exact number might be unknown, one can estimate that there are hundreds of varieties of pulses, including many local varieties that are not exported or grown worldwide. For example, the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) reported that 66 and 77 cultivar varieties of pigeon-peas and chickpeas, respectively, have been released in different countries.

Check out IPY2016.org or Pulses.org websites for more information and ideas on incorporating more pulses into your diet!

This newsletter can be viewed online at: www.rdbn.bc.ca/environmentalservices/recycling/sustainability-newsletter

If you have any questions about the content of this newsletter, please call Elaine Wiebe, Environmental Services Assistant for the Regional District of Bulkley-Nechako at 250-692-3195, toll free: 1-800-320-3339, email: elaine.wiebe@rdbn.bc.ca

Support the Soil in Your Veggie Garden

By varying the ingredients in your compost and the mulches you use, you can support soil life that is either:

- ◊ dominated by bacteria (this soil environment is best appreciated by your lawn and veggie garden)
- ◊ dominated by fungi (this soil environment is best for most of your trees, shrubs and perennials)

Support the soil environment that your garden veggies need, using simple ingredients!

Compost:

Now is a great time to treat your garden with the mature compost you have been culturing throughout the past year (note that when compost is mature, you can't recognize what's in it!). A layer of about 1/4" thick is all that is needed to boost your soil with the bacteria and other soil life found in your compost.

The soil creatures found in compost benefit the soil in many ways:

1. They give structure to the soil as they move through it—providing passages for air and water.
2. They provide tasty soil nutrients (think steak and potatoes!) that your plants can access through their roots. They do this in a way that chemical fertilizers cannot.

A Springtail under microscope…
cute soil bug alert!!

Chemical fertilizers, pesticides, insecticides and fungicides disrupt the soil food web. They destroy the foods that earthworms eat. They ***disrupt the life of the soil and can reduce living soil to life-less dirt.***

Grass Mulch:

Mulches are a great way to control weeds, protect against heavy rains and insulate the soil against extreme heat and cold. Even more importantly, mulch boosts the organic content in soil and provides a home and food for the tiny soil animals that provide nutrients (remember that juicy steak!) to your plants. Grass mulch supports the soil environment that your garden veggies need. All this and it is free! Here is how to apply:

1. Grass mulch works best when it is applied over top of compost (see above).
2. Don't use grass clippings from lawns that have been treated with chemicals or where dog excrement is part of the mix.
3. Add an amount no thicker than 2 to 3 inches thick —avoid putting it next to any plant stems.
4. Work this into the top layer of soil.
5. Moisten the soil/mulch mixture to make it most palatable for the creatures of the soil food web.

Something to Digest

If you already have a backyard composter you will know that some food waste is just not composter-friendly. Cooked foods such as bread or pasta, oil or grease and any fish, meat or bones can create odours, and attract animals, including bears and rodents.

Although these foods may only be a small portion of your food scraps, wouldn't it be nice to keep it ALL out of the waste stream and have an odour free (and smaller) bag of garbage? Here are some options for dealing with these hard to compost wastes:

⇒ **The Green Cone**

You can throw ALL food waste into this container. It requires decent drainage—because most of the food waste is converted into nutrient rich liquid that flows into the soil—as well as sunlight, which along with air circulation, powers the decomposition process. For more information about the Green Cone, including how to use it properly in bear country, please visit: https://www.greencone.ca/partner.php?partner=Durablesolutionsinc.

⇒ **DIY Backyard Digester**

If you have sufficiently deep and well-drained soil, you can make your own backyard digester to handle those food scraps that are unsuitable for your regular composter. Here's how:

- Take a galvanized steel garbage can and drill or punch about 20 holes (1/4" to 3/8" diameter in size) around the sides of the cylinder. Have the bottom cut or welded out.
- In a location that is sunny, well drained and away from any water source, dig a hole deep enough to sink the garbage can, leaving the handles above the surface. If your soil isn't quite deep enough, you can mound it up around the sides.
- Before sinking the can into the hole, improve the drainage by mixing gravel or pebbles into the soil in the bottom of the hole.
- Backfill the soil around the edges of the can.

After each addition of food scraps, sprinkle some wood ash or lime in the hole to cover the scraps and provide odour control. When the hole is filled to within 1 foot (30 cm) of the surface, just pull up the garbage bin, cover the hole with soil, and start over.

⇒ **Feed the Pigs**

Find out if there is a pig farmer in your area who would like to take your extra food scraps as feed.

Q: *What happens to organic waste in a landfill?*

Myth: Organic waste is excellent to add to the landfill. When it breaks down it helps to decompose all the other waste!

Reality: Organic waste doesn't do any good in a landfill. In the absence of air, it turns into a liquid, which moves through the landfill, mobilizing toxins and creating nasty leachate. It also creates methane—a greenhouse gas 21 times stronger than carbon dioxide.

Pulse Recipes!!

Now that you know how important they are, here are some delicious ways to include them in your diet. Check out pulsecanada.com for lots more!

Zucchini and Yellow Split Pea Sauté

1 cup (250 ml) dry yellow split peas
3 cups (750 ml) water
1 tablespoon (15 ml) canola oil
2 green onions, chopped
2 medium zucchini, sliced
2 tomatoes, sliced
1 cup (250 ml) grated medium Cheddar cheese, divided
1 red onion, sliced into rings and separated
Dash of garlic powder
Dash of soy sauce
Dash of pepper

Cook yellow split peas in water for about 25 minutes or until tender. Drain and rinse. Heat canola oil in a large skillet over medium-low heat. Sauté green onions and zucchini slices until slightly tender, about 5 minutes. Add cooked yellow split peas. Stir gently. Layer tomato slices over top and sprinkle with 2/3 cup shredded cheese. Layer onion rings over mixture and add remaining cheese. Sprinkle garlic powder, soy sauce and pepper over top. Reduce heat to low, place lid on the pan and heat ingredients for about 5 minutes. Serve immediately. Yield: about 8 servings.

Top 10 Ways to Eat Pulses

1. Include 1/3 cup of cooked black, white or cranberry beans with an omelette to add protein and fibre
2. Add 1 cup of whole or pureed lentils to your spaghetti sauce instead of ground beef
3. Add 1/2 cup of lentils to quesadillas along with other fillings you enjoy
4. Mix 1/2 cup black beans into 1 cup of your favorite salsa. Add some chopped cilantro and a squeeze of lime juice for an easy party dip
5. Drain and puree 1 cup of canned lentils with your favourite herb and use as a sandwich spread
6. Add 1/2 cup of cooked pulses to soups—this works best for broth-style soups
7. When making your favourite pizza, add a handful of black beans to your usual pizza toppings
8. Replace half the butter or oil when baking with a lentil puree to lower the fat
9. Include 1 cup of chickpeas to any salad for a different twist
10. Serve hummus with carrots, celery and other vegetables for a healthy snack

Seasonal Eating in June and July

Although it is nearly impossible to have a modern “100 Mile Diet” while living in northern British Columbia, we are lucky to be able to find many fruits and vegetables that are grown in the province. Here are some BC grown foods to look for at your local farmers market or grocery store throughout June and July:

June

- Strawberries
- Rhubarb
- Spinach
- Kale
- Green Onions
- Swiss Chard
- Broccoli

July

- Apricots
- Nectarines
- Raspberries
- Cherries
- Potatoes
- Lettuce
- Turnips