Bloom Times

Conservation Landscaping in Lake Tahoe

Volume 4, Spring 2012

Feed the soil, not the plants

By Rachel Kozloski, Soil Scientist, NRCS

The soil in your garden is more than just a growing medium for your plants. It is a living, breathing, nutrient cycling powerhouse. One teaspoon of healthy forest soil contains over 1 billion beneficial organisms working to convert organic material and minerals into plant (and bug) food. By caring for the community in your garden soil you can provide your plants with safe and balanced nutrition.

The "Green Revolution" in the 1930's was the birth of synthetic fertilizers and pesticides. We discovered that by using these chemical additives we could increase productivity and have greater control over our landscapes. But, over the last 80 years we have learned that the more we put in, the more we HAVE to keep putting in. Synthetic fertilizers and pesticides kill off the soil's microbial community and disrupt nutrient cycling in the soil. The ecosystem no longer functions properly and our plants become completely dependent on fertilizer inputs from us.

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Reduce Your Use!

Residential Irrigation Efficiency Rebate Program

High Efficency Sprinler Nozzle

Since more than 50 percent of residential water use takes place outdoors, water efficient landscapes translate into significant water savings. South Tahoe Public Utility District is offering a rebate of up to **$400** to encourage residents to upgrade to a more efficient irrigation system. For more information contact the South Tahoe PUD Water Conservation Specialist at (530) 543-6268.

In this issue

Spring Cleaning

Yard Cleanup for Defensible Space

By Gretchen Eichar, Tahoe RCD

An important part of any defensible space strategy includes removal of woody debris from your yard. To balance fire defensible space with soil conservation, rake pine needles once each spring, but leave the dark layer (called humus) of fine particles on the ground. This organic layer improves the soil and gradually becomes food for plants; it also builds structure for the soil and adds nutrients that plants utilize to grow. Allow the pine needles that fall each year to hold this layer in place for the rest of the season and leave it until next spring. Spring is also a good time to prune broken or diseased branches on shrubs and trees. Check with your fire district for information on curbside chipping programs. Wildfire Awareness Week (events planned for our area May 26th to June 3rd) is a great way to learn more about defensible space; more information is available on line at livingwithfire.info/tahoe.

How to Dispose of your yard waste on Page 5

Lawn Be Gone!

By Sarah Jones, South Tahoe PUD

There are many benefits to replacing your water-hungry lawn with Tahoe-friendly landscaping. You will use less water, reduce runoff and save time and money. Make room for a water efficient alternative and kill your lawn.


Mulch Smother

There are several methods to remove your turf in the Tahoe Basin. For complete instructions check out the How to Remove Turf tip sheet at TahoeRCD.org.

Retire your mower, reclaim your weekends.

Mulch Smother

Smothering the lawn with layers of mulch is an option for those who plan ahead and can wait several weeks before re-planting the area.

Learn how to sheet mulch at the Green Thumb Gardening Kick Off on June 17th from 2-5pm at the LTCC Demonstration Garden!

(***Additional Removal Methods on pg 6...***)

Save the Date!

June 2 -3: Wild Tahoe Weekend, Taylor Creek Visitors Center

June 17: Green Thumb Kick Off Event, LTCC Demo Garden

June - Aug: Green Thumb Gardening Series at LTCC Demo Garden and Tahoe City Historic Fish Hatchery

June 25: Tahoe Keys Turf Removal Demonstration & Workshop

June 27: Community Watershed Partnership Kick Off BBQ, LTCC

Aug 19: Conservation Landscape Tour, Tahoma-Homewood

Sept 16: Autumn Fest, LTCC Demonstration Garden

Sept - Nov: Master Gardener Volunteer Training, SLT

We Want You…

On Our Gardening Team!

We need all green-thumbs on deck to keep the demonstration gardens in tip-top shape! Whether you're an experienced Tahoe gardener or just starting to get your hands in the dirt, any time you can donate to these community spaces makes a difference. The Tahoe RCD staff is never short on gardening chores—be it weeding, raking, mulching, irrigation, creating an alpine garden or veggie box, or installing bird houses. We especially need assistance with prepping the gardens for the start of our Green Thumb Gardening classes in mid-June, and then for Autumn Fest on September 16th.

Volunteering at the Angora and Lake Tahoe Demonstration Gardens is a rewarding way to enjoy the Tahoe seasons, a great place to pick up conservation landscaping tips, and a chance for the more experienced to share and pass on their gardening knowledge. If interested in lending a hand or participating as a community service group please contact Jennifer Cressy, our Master Gardener, at jcressy@tahoercd.org or 530.543.1501 ext 107.

Don't have time but want to contribute?

We need materials to construct our garden demonstrations and can turn your old fence or deck into a compost bin, vegetable bed or cold frame. If your perennials are crowding you out or if you have too many vegetable starts for your garden, we gladly accept plant donations. It takes many hands and donations to keep our community demonstration gardens going. Please check our Demonstration Garden web page for our current wish list.

Six Questions to Ask your Landscaper

And some really good answers!

By Jennifer Cressy, Tahoe RCD

1. What happens to the needles and lawn clippings you haul away? What do you do to limit landfill waste and carbon emissions?
2. How do you keep my landscape healthy without using herbicides and pesticides that damage beneficial insects, people, pets, wildlife and impair water quality?
3. What are some alternatives to synthetic fertilizers which are easily washed through our sandy Tahoe soil and run off our landscapes, polluting our waterways?
4. What methods do you practice to reduce water use?
5. What methods do you use to reduce the introduction of invasive weeds and how do you control them?
6. How will you keep my lawn manicured?

Good Answer, Good Answer

Question 1:

- Repurpose waste on site by composting to build garden soil and mulch.
- Leave lawn clippings in place to fertilize turf.
- Mow or shred pine needles and use as mulch on site.
- Rake instead of using a gas-powered blower.
- Keep lawn mower tuned or use non-motorized mower.
- Limit turf areas.
- For more information read the spring cleaning article in this newsletter

Question 2:

- Practice Integrated Pest Management (IPM).
- Don't over fertilize or over water which encourages rapid plant growth, attracts pests and weakens

Question 3:

- Use slow release organic products to support a healthy living soil which in turn feeds our plants through symbiotic relationships.
- Practice grass cycling to return nitrogen rich lawn clippings to your turf.
- Review Yard Fertility Management tip sheet for more information.

Question 4:

- Group plants by water needs and adjust irrigation appropriately.
- Use water-wise plants and limit turf areas.
- Cut turf on highest mower setting to shade soil and encourage deep root growth.
- Use high efficiency irrigation equipment and design and don't overwater.
- Improve soil with compost.
- Use and replenish mulch.
- Refer to Water Efficient Landscaping tip sheet and other tip sheets on TahoeRCD.org for more information.

Question 5:

- Use weed free seed, mulch and equipment.
- Conduct regular site inspections and weed control.
- Educate clients on how to recognize and prevent the spread of invasive weeds.

Question 6:

- Take care of soil and encourage deep root growth.
- Fine tune irrigation equipment and scheduling.
- Aerate soil to bring water, air and nutrients to root zone.
- Use compost and organic slow release fertilizers, not chemicals and synthetic fertilizers.
- Remove turf from areas that are difficult to maintain and replant with hardier plant choices.
- Weed Mechanically, avoild herbicides.

Invite your landscaper to attend our free Green Thumb Gardening Classes to learn more. Or come yourself!

How To: Make a Worm Bin

By Dana Olson, Tahoe RCD

Vermicomposting can be done year round and with minimal effort or cost. Making a home for your worms is the first steps.

What you need:

- 2 bins (not translucent, shallow and with a gap formed between them when they are stacked)
- Drill with 1/4" and 1/16" drill bits
- Shredded newspaper or a coir block (found at local hydroponics stores) for bedding
- A piece of cardboard, brown paper bag or 4 full sheets of newspaper
- Food waste
- Red wiggler worms (*Eisenia fetida*)

There are many good designs available online. The following is one of my favorites.

Some local places that sell worms:

Full Circle Compost
(775) 267-5305
fullcirclecompost.com

Peaceful Valley Farm Supply
(888) 784-1722 (call ahead)
groworganic.com

Sierra Worm Compost
Carolyn O'Connor
(888) 967-6266 (call ahead)
sierra-worm-compost.com

1. Drill around 20 holes with the ¼" drill bit into the bottom of one of the bins.

2. Drill approximately 30 holes with the 1/16" bit into the lid of one of the bins.

3. Place the bin with the holes in the bottom into the second bin. Add wet (squeeze out excess moisture) shredded newspaper or a moistened coir block to the bottom of the bin. If using newspaper, add a couple handfuls of soil to help the worms digest their food.

4. Add the worms.

5. Add some food. Put the food in one area and rotate around when adding food in the future.

6. Cover the whole area with the cardboard or other material that you are using. Ensure that the entire area is fully covered.

7. Put on the lid with the holes in it.

Store in a well ventilated area where temperatures stay between 55 and 80 degrees.

After about six months, you will be ready to harvest some compost. Stop feeding for a week or two. Pile all the compost to one side of the bin and add new bedding and some of the worms' favorite food (succulent, sugary foods such as melons and cucumbers) to the other side. Wait a few days and the worms should migrate to the new food. Harvest the old pile, picking out and returning the straggler worms.

Check out the last page for helpful tips on keeping your new bin healthy and happy!

(*Feed the Soil continued...*)

Managing the complex nutritional needs of our garden is not an easy task. There are 18 essential plant nutrients and each plant needs them in different amounts. How can we possibly get it right? The answer is to ***stop trying***! Recruit the billions of hardworking microorganisms living in your soil and let them do the work. Microorganisms like all life, require air, a little water, food, and shelter in order to thrive. By taking just a few steps, you can provide for the organisms in your soil community so that they can feed your landscape.

Eliminate or reduce application of synthetic fertilizers and pesticides
First things first: if you want to build your soil community, you have to stop poisoning it. Any pesticide use will have a detrimental effect on beneficial soil organisms. In addition, synthetic fertilizers are often very acidic and penetrate soft bodied organisms like worms and protozoa. Water soluble synthetics may also contain high levels of chlorine, copper, and zinc which can create toxicity problems for your plants as well as for the soil organisms. Also keep in mind that in our coarse textured Tahoe soils, any water soluble fertilizer will quickly move beyond the root zone and will be out of reach of your plants.

Build your soil
Adding compost is the best way to feed your soil community. For annually planted landscapes and vegetable gardens, work finished or partially finished compost into the soil prior to planting. Perennial beds can be top dressed with finished compost and then mulched. Water moving through the compost will carry nutrients into your soil as they become available. Keep in mind that native perennials are adapted to Tahoe's nutrient poor soils and rarely require additional fertilizer. Adding organic matter to your soil also provides habitat for the soil community and reduces the density of the soil by creating air spaces.

Water Appropriately
Overwatering may be one of the worst things you can do for your landscape. First of all, when water moves into a soil, it displaces oxygen. The oxygen loving members of the soil community are responsible for providing the majority of plant available nutrients. Water also reduces the temperature of a soil and slows nutrient cycling. Continuously wet soils encourage the growth of various mildews and fungi which can cause plant diseases. Additionally, overwatering pushes nutrients out of the root zone and away from your plants. Plants are the "water hogs" of the ecosystem; keep an eye on them to water appropriately. This means addressing the "Where, When, and How" of your plants moisture requirements.

Where: Apply water directly to the soil around your plants roots.

When: Pay attention to your landscape and schedule your watering to coincide with the first signs of stress.

How: Deep and infrequent watering encourages the development of healthy roots.
A wealth of tip sheets are available to help you along the way to a well fed soil and a healthy landscape. For more information visit the Conservation Landscaping Resources page at TahoeRCD.org.

(*Spring Cleaning continued...*)

Disposal of yard waste:

South Lake Tahoe
Yard waste such as pine needles, pine cones, leaves and small branches can be collected by your local refuse collector. Bag up these materials separately from other trash and leave them for pick up on your regular pick up day. South Tahoe Refuse now recycles green waste for use in local re-vegetation projects. Take a look at the South Tahoe Refuse website for additional information southtahoerefuse.com.

Incline Village/Crystal Bay
Incline Village General Improvement District (IVGID) offers access to curbside yard waste recycling for district Incline Village and Crystal Bay residents. This service is available April 30th to October 26th. Restrictions apply. Check out http://www.ivgid.org/utilities_services/trash/curb for more details, or call IVGID Waste Not at 775-832-1284.

Tahoe City and Truckee
Tahoe Truckee Sierra Disposal Company service area collection varies by neighborhood. Please call the disposal company at (530) 583-0148 for more information on your area.


Tahoe Master Gardener Volunteers

(*"How To: Make a Worm Bin"* continued...)

What I've learned:

- A good bin sizing rule of thumb is to have 1 to 2 square feet of surface area per person that will be using the bin.
- I recommend making a bin that allows for excess juice to flow out into a secondary bin.
- Worms love fruits and vegetables, will handle some more starchy and acidic foods and aren't too keen on garlic and onions. Stay away from feeding the little guys dairy or meat.
- Always cover the food waste completely with newspaper or cardboard to reduce the likelihood of vinegar fly infestation and keep the feeding area dark.
- Once the worm bin environment is establisheds, there will be a host of additional microorganisms to help with the composting. This is normal and usually beneficial. If there is an overabundance of any particular bug, it's time to investigate. The Happy D Ranch website has a section on figuring out what bugs are in your bin and what needs to be done to correct the imbalance.
- A properly tended bin will not smell. A foul odor means something is out of balance and needs attention. I keep mine in my kitchen and I have yet to have anyone realize they are there! The usual problems are: not enough air, too much food or the bin is too wet. To correct these common problems, drill more ventilation holes in the lid to provide adequate air flow, apply food at a slower rate to avoid overfeeding and add more bedding to absorb moisture.

- Freezing or grinding up the food will speed up the recycling time substantially.
- Shallow bins with a greater surface area work better. Worms live at the surface of the soil and won't use much more than the top few inches of the bin.
- Don't use glossy magazine paper or paper with petroleum based inks. They can harm the worms or create compost that contains harmful residual toxins.

(*"Lawn Be Gone!"* continued...)

Solarization
Using plastic to kill unwanted grass is another option. Black plastic blocks out light slowly smothering grass roots and preventing new growth while clear plastic steam-sterilizes the soil trapping sunlight under the plastic.

Sod Cutter
This is a simple, quick and easy method.

A sod cutter can be set to cut at multiple depths, ensuring a quick and efficient removal of unwanted turf.

Strip and flip
Using a sod-cutting machine, or by hand, cut and flip the turf over.

Hand Removal
This option is easier on the pocketbook but is more time consuming and labor intensive.

Water meters are on the way for every South Tahoe resident as mandated by California state law. Now is the time to replace your water guzzling turf with a beautiful, low water use, native- adapted Tahoe garden!

Thank you to all Tahoe RCD contributors and partners for providing content for this issue.

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TAHOE RESOURCE CONSERVATION DISTRICT