FROM THE HORSES MOUTH

a newsletter from Livestock and Land (January 2019)
Carmel Valley Compost - 100% Horse Manure, 0% BS
by Susan Bangcroft

What do you do with piles of horse poop? What used to be a problem - accumulated manure from a horse boarding business in Carmel Valley in central California - has become a green side business. In 2008 the Bancroft Ranch, an equine boarding facility with 30 plus horses, installed a sophisticated manure composting system with grant funding through the Livestock and Land program. The program is a collaboration of local Resource Conservation Districts (RCD’s) and Ecology Action, a non-profit based in Santa Cruz, CA. Additional assistance was provided through the USDA Natural Resources Conservation Service (NRCS). The Livestock and Land program works with livestock owners and facility managers to solve soil and water quality concerns that can arise from livestock keeping. Bancroft Ranch is now a “Watershed Steward Demonstration Site” and share their success with other horse facility operators.

Horse manure is collected and composted in a state-of-the-art (yes, there is a state-of-the-art in composting) where the process is shortened using aerated bays, which not only eliminates the need for turning, but creates a more consistent end product than ordinary composting in a static pile. Owner/operator and chief pooper-scooper Susan Bancroft has been delighted in the results, both in the quality of the finished product, but also the very tangible side effects of a cleaner (less mud and muck), neater and nearly fly-free property.

The resultant high-quality compost is offered for sale either in recycled feed bags or in bulk and also supplies the local garden club. Susan is a periodic speaker at local garden club gatherings and has a devoted clientele that have bought out her supply the past 5 springs.

To learn more about how Livestock and Land can help your facility, visit www.livestockandland.org.

Horse Facility Photo Monitoring Made Easy
by John Warner, USDA Soil Conservationist

With all the recent wet weather we’re enjoying, now might be the right time to set up some simple permanent photo monitoring locations at key locations where water runs off your property. You might have some filter strips or other permanent vegetation on the outside of horse paddocks where water can gently overland flow off your property (see picture to the right).

Or you might have some more challenging places where water leaves your property. But in any case, permanent photo monitoring can you give important information that can inform your stormwater runoff management.
After the Soberanes Fire, Big Sur Land Trust set up photo monitoring stations throughout their redwood forest to document vegetation recovery (see picture left).

As you can see, this is really just a simple L bracket mounted on a post that allows you to place your smart phone in exactly the same position every time you take a picture. For horse facilities, these simple photo monitoring stations can be set up on fence posts, or another suitable flat surface, where the L bracket can be mounted. Another advantage of using smartphones to take your monitoring pictures is that these pictures are usually date stamped so it is very easy to document when your picture was taken.

Some suggestions of what to monitor with photographs: Manure Management Areas, Pastures, Paddocks, Open Arenas, Riding Rings, Trails, Roads, Riparian Areas, and more. Depending on the monitoring purpose, photos can be taken during winter rains to show runoff patterns, but also in the summer to show a contrasting view. It is especially valuable to have photos taken from exactly the same spot before and after any water drainage improvements you may undertake. Have fun taking pictures, and you may be surprised at how useful these photos will be in how you manage your property!

**Selected Yellow Starthistle Treatment Options**

by Devii Rao, University of California Cooperative Extension

Yellow starthistle is an invasive rangeland weed that takes over pastures, reducing quality and quantity of livestock forage. Ranchers continue to struggle with controlling this species. *Weed Control in Natural Areas in the Western United States* (DiTomaso, Kyser, et al. 2013) is an excellent book with information on how to control yellow starthistle and many other invasive species that occur in California. The yellow starthistle chapter is available at: [http://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_solstitialis.pdf](http://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_solstitialis.pdf) This article summarizes the yellow starthistle chapter from this book.

Three of the main yellow starthistle control strategies are herbicide, grazing, and mowing.

**Herbicides**: Several herbicides are effective on yellow starthistle, but two of the best options are Aminopyralid (Milestone) and Clopyralid (Transline). The best time to spray Aminopyralid is from the seedling stage to the rosette stage. The best time to spray Clopyralid is when the plant is in the late rosette stage. Grasses are not harmed by either herbicide.

**Grazing**: Cattle, sheep, and goats can all be used to graze yellow starthistle. The best time to graze is from the bolting stage to right before the spiny heads emerge. Bolting is the stage after the stem comes up out of the rosette, but before the flower head begins to emerge. Protein content during this stage is relatively high: 8% to 14%. Once the spines come out
yellow starthistle becomes less attractive to cattle and sheep and they start avoiding it. Goats, on the other hand, are not dissuaded by the spines so they are often used in yellow starthistle targeted grazing programs. Short-duration, high-intensity grazing is the most effective grazing strategy to control yellow starthistle.

**Mowing:** Mowing can be an effective control option if you have an area that’s flat enough for a mower to be safe and not tip over and doesn’t have too many big rocks to get in the way of the mower. It will take several years of mowing to control yellow starthistle. Control will be even better if mowing is used in conjunction with other control methods. The best time to mow is when 2%-5% of all the yellow starthistle plants are in bloom. Timing of mowing is critical. If you mow too early, yellow starthistle can grow back and produce even more seed than if you had not mowed. Mowing too early will also eliminate grasses and other existing plants that were competing with yellow starthistle. Yellow starthistle doesn’t do as well if there’s a thick mat of other vegetation to compete with. So, removing these plants releases yellow starthistle from competition, allowing it to grow better. If you mow too late, you’ll spread the seed. Researchers found that they got the best results when they mowed twice: once during the early flowering stage and then a second time 4-6 weeks later after the plants had regrown and had produced flower buds.

Effectiveness of mowing also depends on how your yellow starthistle plants are growing. If you have plants that are tall, and the branches are high up on the plants, you may only have to mow once during the early flowering stage. But, if you have plants that are spread out at the base and the branches are lower on the plant, you may not be able to control it very well because the mower can’t get low enough to cut the branches.

**References**


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**Grants for Managing Drainage & Manure**

by Angie Gruys, Resource Conservation District of Santa Cruz County

The Livestock and Land program, managed locally by the Loma Prieta and San Benito, and Santa Cruz Resource Conservation Districts (RCD’s), is offering $175,000 in grants to local livestock owners in southern Santa Clara and San Benito Counties located in the Pajaro River Watershed. The monies will help pay for improvements to livestock and horse properties that need assistance with managing drainage, erosion, stormwater runoff and manure. Applications accepted through May 1, 2019.

The Livestock and Land program was started in Santa Cruz County by local conservation districts and NGO’s as a way to work affect positive changes to water quality concerns from livestock facilities. The program works with residents on a voluntary basis to reduce stormwater runoff by implementing good drainage practices. Past projects have included...
everything from gutter and downspouts to French drains to manure composting facilities to fencing and more. “The great thing about this program,” explains Dina Iden, Executive Director of the Loma Prieta RCD, “is that the benefits go far beyond water quality improvements to our local creeks and streams. Depending on what upgrades you make, cleaning stalls can get easier, animal health issues can be reduced; maintenance cost can be lowered, your property can be safer, and it may even increase in value. It’s basically a win-win.” According to Iden, property owners can get up to 50% of the cost of improvements covered by the program. And there may be other federal grants programs that can be combined with this program to cover even more of the cost. The program also offers no-cost technical assistance and project designs. Funding for the program is made possible through an EPA Clean Water Grant and the Regional Water Quality Control Board.

If you are interested in seeing examples of past projects, visit the program web site at www.livestockandland.org. To get an application or find out more about the program call 831-464-2950 x22. The program also offers educational workshops and hands-on trainings. You can ask to be added to our mailing list if you would to get updates on these opportunities.

Resource Conservation Districts (RCDs) are independent, non-regulatory, special districts of California. Serving local communities through conservation projects funded mainly through grants and private contributions, RCDs are partners in local conservation and agriculture. RCDs help people to protect, conserve, and restore natural resources through education, technical assistance and collaboration with other organizations to achieve results within their districts on public and private land.