Institute for Applied Ecology
20 years of restoration, research, and education

SAGEBRUSH in PRISONS PROJECT

Sagebrush in Prisons Project

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Sagebrush in Prisons is an ecological education program for incarcerated adults and youth, a partnership of the Institute for Applied Ecology, Bureau of Land Management, and State and Federal Correctional Institutions and is a part of the Sustainability in Prisons Project.

What's Happening?

Watering
Follow protocol as discussed and is detailed in the "To Water or Not to Water" handout

Watch for Root Rot
If root rot is present, separate infected containers from non- infected ones and let the infected ones dry out completely (See hand out for more information)

Thinning
Work on slowly thinning down the number of plants per container

Perform pH tests
Every other week

Fertilizer
Once a week (refer to notebook for instructions)

Set up shade structures
Done by beginning of July
*shade will affect evapotranspiration

Watch your sagebrush babies grow!

Life, Liberty, and the Pursuit of Nature

Written by Nevada SPP staff

You may have heard the saying "An apple a day keeps the doctor away" but would you believe that a little dose of nature could help keep the mental health doctor away? Recent studies have linked positive mental health changes with exposure to green spaces, and hospitals and doctors are looking for new ways to incorporate the natural world into treatment. In an article written by Aaron Reuben for Outside, outcomes of patients who had a view with trees versus one of a wall were compared. Patients with the tree view used less pain medications, were released from the hospital sooner, and were said to be in a "better mood" by their nurses. This small study led to a series of larger studies that found similar evidence overall that access to the natural environment benefited human wellbeing. They suggest that stress hormones like adrenaline are reduced in people out in nature, as well as lowering blood pressure, short-term anxiety, and depression. One large study out of Denmark showed that children who grew up in greener neighborhoods were less likely to have mental illnesses, regardless of where they lived, their family's wealth, family history of mental illness, or other factors that could create stressors in ones' daily life.

Another study manipulated the landscape of an entire city to see how the changes affected residents' mental health.The study found that people experiencing poor mental health was cut nearly in half when they were exposed to new parks in their neighborhoods versus people whose neighborhoods experienced no green changes. Another interesting facet of the study showed that even people who were unaware of the changes in their neighborhoods showed positive emotional boosts, showcasing the importance of nature regardless. So the next time you find yourself feeling down in the dumps, try giving yourself a dose of the natural world as a pick me up.

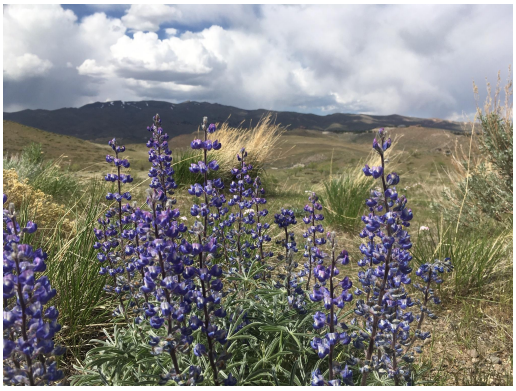

Photo by Shannon Swim of Lupinus argenteus near Reno, NV.

References:
http://challengethestorm.org/the-mental-health-benefits-of-spending-time-outdoors/

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Feral Horses: Symbol of the American West, or Ecological Nuisance?

Written by Nevada SPP staff

To many Americans and wild horse advocacy groups, feral horses roaming the rangeland of the American west are an encompassing symbol of the region, and should be prioritized over cattle ranching. But to many scientists, ranchers, and government organizations, the feral horses are wreaking havoc on the ecology of the landscape at unprecedented and dangerous levels. This makes management a very tricky task, one where politics and ecological consequences collide. According to an article written by Ben Masters from the National Geographic, nationwide there are approximately 75,000 wild horses on the landscape, which is roughly 3 times the Appropriate Management Level (AML). In Nevada, populations are approximately 34,000 - 21,000 more than AML. This means that the feral horse population is much greater than the landscape can sustain, particularly with regard to food and water. This leads to intense pressures from overgrazing, and since the rangeland supports a multitude of species - including feral horses - resulting in ecosystem degradation and eventually horse starvation. See photos at right, courtesy of the University of Nevada, Reno Ag Experiment Station. Grazing is managed through hunting permits, natural predators, and regulations on ranchers for when and how much cattle can feed. Feral horses have limited predators and are not hunted, and the BLM has traditionally used roundups as a means of removing horses. This is very expensive, largely ineffective in reducing population sizes, and requires long-term permanent housing for the horses on an already strapped budget.

As the feral horses continue to overgraze the rangeland unchecked, they deplete the landscape of palatable and native forage. Grazing opens a gap for invasive species —such as cheatgrass— to choke out native vegetation. This has led to a cyclical, large-scale degradation of the rangeland, by creating a monoculture of weeds that promote wildfire, which in turn removes native vegetation and opens more gaps for invasives. Our work in restoring native plants and habitats in the Great Basin through growing and transplanting sagebrush is very important for the overall ecology of the landscape, but without grazing management of large animals, much of that important work has the potential to be undone.

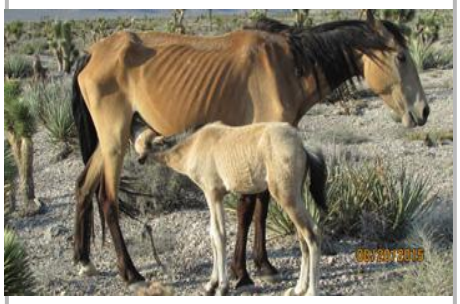
References and photo credits:

Nevada Agricultural Experiment Station Report:
http://naes.unr.edu/news/story.aspx?StoryID=845

https://www.blm.gov/programs/wild-horse-and-burro/adoptions-and-sales/adoption-centers/mantle-adoption-and-training-facility

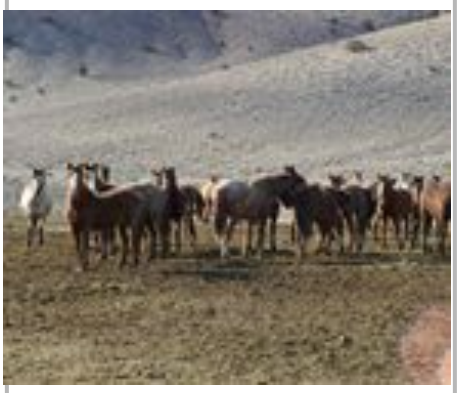
American Wild Horse Campaign:https://americanwildhorsecampaign.org/media/winter-wild-horse-roundups-full-force

Feral horse helicopter roundup.



Starving foal suckling from emaciated mother.

BLM adoption and training facility.



Large herd of wild horses on the range.