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

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
Work as a team to determine water need on a daily basis

Thinning
Just keep thinning! We should be down to one plant per container by the end of the month. ***Thinning is a top priority!***

Got Root Rot?
Separate infected containers from non-infected ones if possible to mitigate with water management. Let the infected ones dry out completely (See hand out for more information)

Fertilize
Once a week (refer to notebook for instructions)

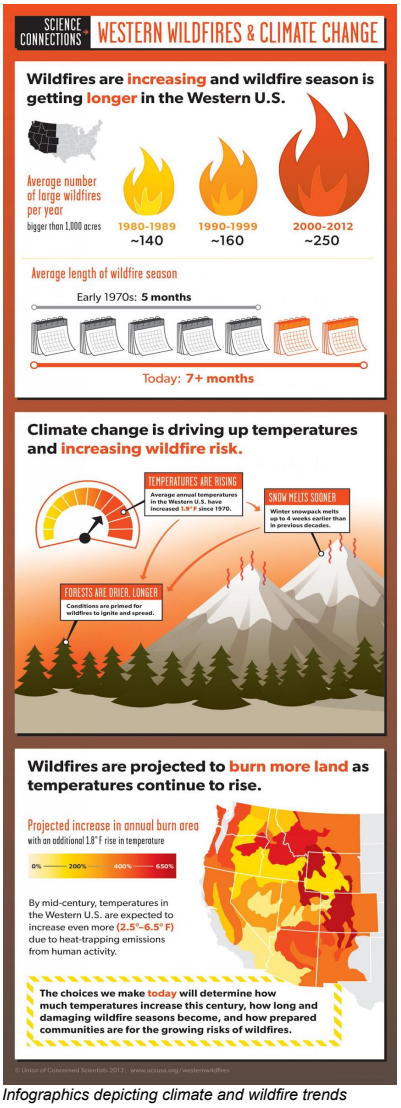
Perform pH tests
Every other week

Watch your sagebrush babies grow!

Burn Baby Burn: How Climate Change Will Affect Western Wildfires

Written by SPP staff

The U.S. has experienced an uptick in wildfires over the past several decades, and nowhere are these effects being felt more than the West. According to an article written by the Union of Concerned Scientists, as the earth's temperature continues to increase, wildfires in the Western U.S. will see similar and more dangerous effects. On average, the amount of large wildfires has nearly doubled in the West just in the last 20 years, and fire seasons have continued to increase in length over the past 40 years. The West is also experiencing higher temperature increases than the rest of the world, which has led to earlier snow melts and drier forests and rangelands. There are a variety of ecosystems within the Western U.S., and though each ecosystem will see average annual increases in burn areas over the next several decades, these changes will have varying effects depending on the ecosystem type and its ability to resist and bounce back. If we want to push back against these devastating fires to come, the world population will have to curb emissions that are promoting temperature increases and perpetuating climate change.



Infographics depicting climate and wildfire trends

References and photo credits:

Union of Concerned Scientists:
https://www.ucsusa.org/global-warming/science-and-impacts/impacts/infographic-wildfires-climate-change.html#

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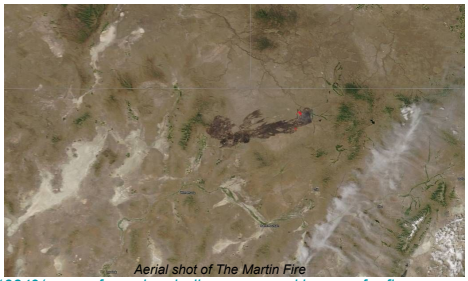
SAGEBRUSH in PRISONS PROJECT

Up in Smoke: How the Martin Fire Devastated the Northern Nevada Landscape

Written by SPP staff

On July 5th, 2018 at approximately 12:45 AM, a human caused wildfire broke out northeast of Winnemucca. According to articles written by Ashley Ahearn for NPR and Methow Valley News, the fire —later dubbed The Martin Fire— burned nearly 440,000 acres of northern Nevada and was the largest fire in state history. NASA later confirmed the fire was approximately 57 miles long and 31 miles wide, and was able to propagate quickly due to high winds and temperatures coupled with very low humidity. Much of the landscape was comprised of important native vegetation —including many sagebrush species— but the fire has left scorched earth behind, and prime real estate for the explosion of invasives, primarily cheatgrass. As we know, the loss of vegetation to our landscapes is detrimental to the entire ecology of our desert ecosystems, especially for animals that depend on our native species for food, protection from predators, and nesting. The Martin fire wiped out approximately 35 sage grouse mating sites, aka leks, leaving our native bird friends scrambling to find new homes. Many stakeholders —including the BLM, NDOW, rural ranchers, and IAE— are working collectively to come up with a plan for restoring this landscape and the sage grouse habitat before cheatgrass is able to completely take over. Cheatgrass and wildfire perpetuate one another —creating a positive feedback cycle— where increases in cheatgrass populations lead to more wildfire that destroys more native vegetation that opens the gap for more cheatgrass invasion. With extensive land management and our efforts in the sagebrush program, we can help fight the battle of the weeds!



Aerial shot of The Martin Fire

References and photo credits:

NPR article:
https://www.npr.org/2019/05/30/725713849/a-sea-of-sagebrush-disappears-making-way-for-fire-prone-cheatgrass

NASA:
https://www.nasa.gov/image-feature/goddard/2018/martin-fire-in-nevada-is-57-miles-long

Incident Information System:
https://inciweb.nwcg.gov/incident/5899/

Restoration in Action: A Look Inside the Martin Fire Aftermath

Written by SPP staff

The lead Sagebrush in Prisons Project Coordinator in Nevada & California —Shannon Swim— had the pleasure of attending and speaking at the NV Society of Range Management (SRM) Field Tour of the Martin Fire this year. SRM is a national professional organization that brings together the different sectors of the rangeland management community to provide stewardship of rangelands based on sound ecological and socioeconomic principles. Their goal is to facilitate functioning and sustainable rangelands for the future. As you know from the previous article the Martin Fire was the largest fire in Nevada's history and this tour highlighted the challenges that the local community, cattle ranchers, land managers, and researchers face, dealing with the devastation this fire caused. We talked about the effects the fire had on the local community through game habitat destruction, as well as the inability to graze certain areas. We looked at fuel breaks the BLM had installed through green strips and mowing, how researchers were investigating seed coating technologies to enhance germination of native plants and how the Sagebrush in Prisons Program was helping to provide some MUCH needed native plant material to help restore this land. We even saw some of our plant babies that were planted the previous year!

Shannon Swim speaking about our program. Photo Credit: Dan Harmon/ SRM field tour organizer