

Wildfire Lessons Learned for Livestock Producers

thoughts from Trey Patterson,
CEO Padlock Ranch, Wyoming & Montana

Question: Did you have a cheatgrass issue following your wildfire?

"Even after complete deferment and fencing that off, we had a lot of annuals come back in that area, some cheatgrass, but just a lot of weeds, different type of weeds. There's still a weed problem in that area today."

"Now other areas... we've actually seen a reduction in cheatgrass following the fire... After this 2017 fire, the study was done this year in 2018, we had less cheatgrass in the burned area than we did in the non-burned area [with moisture]... So there may be some interaction in terms of subsequent moisture.... While we saw a reduction in year one, my concern is that in year five, it may be elevated."

Question: What is necessary for recovery?

"Of course we need some recovery... every year is different, the timing of every fire is different, the landscapes are different. I think we're trying to look at it pragmatically, but also scientifically as to how these plants are responding. What kind of moisture we're getting post fire? What kind of recovery we're getting?"

"There's some great research being done at the Miles City USDA station, Dr. Lance Vermier is doing work where they're actually showing they could not create a fire hot enough to kill western wheatgrass- to effect the buds on western wheatgrass. What he found through his research was that actually at the next growing season, the short term planned, time controlled grazing on these burned areas actually stimulated recovery and reduced the number of annuals that were available."

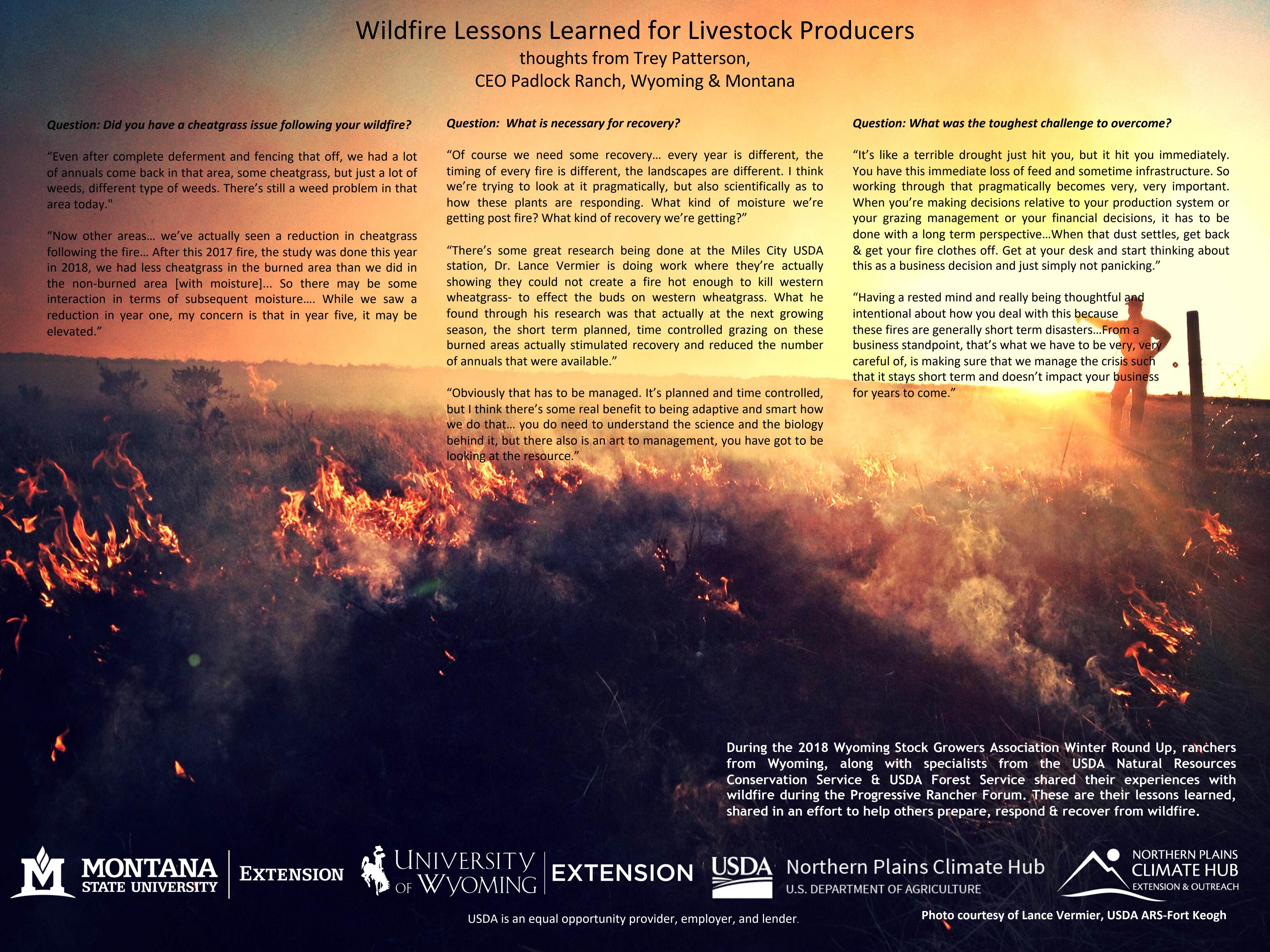
"Obviously that has to be managed. It's planned and time controlled, but I think there's some real benefit to being adaptive and smart how we do that... you do need to understand the science and the biology behind it, but there also is an art to management, you have got to be looking at the resource."

Question: What was the toughest challenge to overcome?

"It's like a terrible drought just hit you, but it hit you immediately. You have this immediate loss of feed and sometime infrastructure. So working through that pragmatically becomes very, very important. When you're making decisions relative to your production system or your grazing management or your financial decisions, it has to be done with a long term perspective...When that dust settles, get back & get your fire clothes off. Get at your desk and start thinking about this as a business decision and just simply not panicking."

"Having a rested mind and really being thoughtful and intentional about how you deal with this because these fires are generally short term disasters...From a business standpoint, that's what we have to be very, very careful of, is making sure that we manage the crisis such that it stays short term and doesn't impact your business for years to come."

During the 2018 Wyoming Stock Growers Association Winter Round Up, ranchers from Wyoming, along with specialists from the USDA Natural Resources Conservation Service & USDA Forest Service shared their experiences with wildfire during the Progressive Rancher Forum. These are their lessons learned, shared in an effort to help others prepare, respond & recover from wildfire.



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thoughts from Wayne Barlow,
Rancher, Big Piney, Wyoming

Question: What was the toughest challenge to overcome following wildfire?

"For me being out there on the ground and a permit holder, the toughest challenge for us is where do we go now? Because you know you're not going back where you were for at least two years. You're pretty much in a real bad spot to try to find somewhere to go. On these Forest and BLM permits, generally speaking, those are all being used. On the side of the state where we're at, there is very little private ground where you could potentially go to replace that loss that you're going to have on federal allotments."

"If it wouldn't have been for these folks coming together {Forest Service, Natural Resources Conservation Service, and Wyoming Game and Fish} and finding out where there were available spots to go at some of these places, or for some of these cattle, it would have been really hard to try to do that individually."

"We moved from where we were 60 miles to a Game and Fish habitat area, it's where we ended up going for two years. That's a long way from home to try to keep track of what's going on."

Question: Any experience using the Natural Resources Conservation Service Environmental Quality Incentive Program (EQUIP)?

"In our 10,000 acre allotment, we have a 10 acre wet meadow area that's under scrutiny, always, but it's important for our cattle. We got EQUIP monies to protect the area by piping water away from the wetland. We also added fencing to keep cows away without needing a daily rider."

"One take home message- it's devastating and involves change, but it's short term. At the time, you will NOT believe fire could be good. But a few years later, you'll see the fire has good impacts on your forest understory."

"Get rid of and thin trees with no understory, replace it with an amazing diversity of forage that the cows will love! My cows purposely seek out those burned understory areas now rather than the open rangeland areas... eating hollyhocks- they love it! I don't know how much water those trees consumed. We'll see more runoff, new springs popping up everywhere."

"Fire will require change in your operation, but get through those first few years, and you'll be good!"

Question: You alluded that you had to make different management decisions after the fire, could you please elaborate?

"Our normal turnout time is May. Our allotment is 50,000 acres divided into four pastures. The fire affected one pasture, the other three were useable, but using them would have required people to come home early. So we decided to go to the wildlife area instead. One of the guys affected used to run only yearlings. He sold most of those yearlings after the fire so he could focus on feeding his cows. He's never bought back into yearlings {he lost flexibility}."

"In the second year, we found private ground because the wildlife habitat allotment was too difficult to manage. We went to a neighbor's place {rented pasture} for June until we could work out of the wildlife habitat."

"Our other neighbor couldn't get onto his allotment for a month. He had to round up his small herd on 15,000 acres when it was finally time to turn out on wildlife allotments."



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thoughts from Jennifer Hayworth,
Natural Resources Conservation Service, Pinedale, Wyoming

Question: Have you developed a longer-term 10 to 20 year grazing plan to prepare better for the next round?

"Drought planning- do you know what your operation is stocked at, 70%? 110%? When an emergency arises, how much wiggle room do you have? Work with your family to make sure THEY know these things too, not just you. You can't do drought contingency planning without knowing your base. Figure out what resources are available in your community. Don't assume a team already exists in your community to just tap into. Start with whichever agency is the Rockstar in your community... Don't discount the Conservation Districts! Ask! Push us!"

Question: What's going on at the federal level from the stand point of controlling some of these invasive grasses?

"As an agency, noxious weeds are a problem and our Sage Grouse Initiative really, really is focused on trying to treat noxious weeds. You can enroll for the EQUIP program to either treat on your private, or your federal land, cheatgrass. So if you're in a sage grouse area, and you're interested, then you should visit with your local NRCS office to evaluate those opportunities."

"I can not let this conversation go by without saying how important it is with you guys on the ground, for early detection, rapid response... You need to communicate with your range management specialist, and your Weed and Pest... You might save us so much time by getting there early."

"If you see a plant you don't recognize, call it in... we need your help... You are your first line of defense... It's not my problem, it's OUR problem. If you want to continue grazing on federal lands like you always have, this annual invasive grass is so very important. I just can't tell you enough the threat that this is to our way of life. I'm passionate about it too, we need to work together."

Question: What was the toughest challenge to overcome following wildfire?

"We need to think about that seed bank and managing that seed bank... What we learned is we needed to be thinking about weeds right away. So if we have two years of rest and we have the right plants producing seed and really repopulating our seed bank, that gives us that insurance policy to fight against weeds and to help that situation. We need to think about that long term sustainability of that landscape to support cattle grazing, and so we're thinking about that seed bank and getting it in there, providing more opportunities for competition against the weeds..."

"It's very dependent on your plant communities, because what we're experiencing in our plant communities is very different... It's not a recipe. All of our experiences are not a recipe and even in our own county, what happened on the Fontenelle Fire is not what's going to happen on the Roosevelt Fire. That inventory of where you operate, the partners involved, the land users, the managers, and your partners in your area would all look very different. I think communication and talking during the season and maybe even trying to be proactive, and think about, "what if a fire impacted me on this part of my operation? What would I do?"

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thoughts from Andrew Cassiday,
Natural Resources Conservation Service, Sheridan, Wyoming

Question: Have we learned ways to minimize the effect of a fire as they get started?... Did you have a cheatgrass issue following your wildfire?

"What lessons can we learn?... What can be done to mitigate impact, but with an eye towards future control or suppression of fire?... Various ideas have been thrown around, some sort of green strips. I've seen in the Intermountain West forage kochia as a green strip to get a chance to get ahead of a fire and knock it down briefly. To hold a fireline until you can get there and actively suppress a fire... One of the thoughts we've had, is grazing a tool that can be used to mitigate future fire and response to fire? I think grazing is a tool. Late season or winter forage, maybe we need to rethink that in fire prone areas? Grazing can be used as a tool..."

"Cheatgrass and Japanese brome are the two annual grasses we're dealing with primarily in our area. They put on a tremendous amount of seed and they tend to associate with litter which promotes a fire prone system. And using grazing as a tool to manage that flies in the face of what we know as good grazing management. On the Great Plains we want to promote litter to insulate soil, to hold moisture, but it can be a mixed blessing in a fire prone nature. It can promote the annual grasses which can further push us towards risk."

Question: Pretend that the discussions about climate were not political, what are you doing to prepare for the future?

"...I feel like we need to look pretty hard at the way we plan grazing management and grazing management assistance to land owners. It seems like in the last 10 years or so, our local climate is drier, hotter in the summer, and our moisture is particularly spring and fall. How do we adapt grazing practices and stocking capacity calculations in order to match that?"

"With respect to fire and the increasing prevalence of large, hot, summer/late summer early fall fire, how do we alter that mosaic with grazing management planning? The traditional way is that we graze pasture one time in a year. That's a structural element that needs some reexamination if we get a flush of growth in the spring time and then again in the fall, use both of those in an appropriate manner to mitigate the risk and make the best use of that resource."

Question: How do you prepare for wildfire?

"It's a whole different calculus, the structural elements of the NRCS program world. We take applications in the fall and commit money in the spring and summer. Then the projects occur in that summer and into the fall. It is a challenge, it's a structural change that as an agency we need to look at. How do we become more adaptable and more flexible?... The value of these operations on the landscape and our ability to support that in the face of fire or drought... we can provide an offset. In some cases, can help put that infrastructure back together, and look to our partners and circle up. What could we provide? What can they provide? In order that we can meet as many needs as possible, and to be good listeners. What do we need as the smoke blows away? What are the needs and how can we adapt our structures to meet them and how do we broker to those that have different structure and different abilities to meet those needs."

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thoughts from Chad Hayworth,
USDA Forest Service, Big Piney, Wyoming

Question: What was the toughest challenge to overcome in relation to wildfire?

"I think the toughest challenge for me was the perspective of some of the agencies attitudes... When the Fontenelle fire burned up, I was visiting with another Range Con, and he said, "we got to rest these allotments next year," and I was like, "ok, what are you going to do with your permittees?" And they were like, "that is not our responsibility, that is gonna be up to them."

"At that point my brain is starting to trip triggers and starting to think, "well we've got to do something." So that's when I called together a meeting with our partners from the BLM, with the Game and Fish, the Conservation District, the NRCS, the local Weed and Pest office. Even in my own agency, I had a difficult time convincing my own supervisors that my time investment of energy and resources into putting cows on feed was of value to our community. I am so fortunate that I can say that the outlook and the perspective over the last 6 or 8 years in my agency, the pendulum has swung, and being part of the community is way more important to the Agency than it was at that point."

"That was the biggest challenge for me, was to gather people up and get them to understand that the livelihoods of our permittees are extremely important to the community and to us as Agencies. And I feel like we were able to overcome those challenges."

Question: What's going on at the federal level from the standpoint of controlling some of these invasive grass plants that cattle don't eat? Grazing is a great tool, but it doesn't work if the cattle don't eat it. From the stand point of preparedness and management, with the preponderance of the grass plants increasing, its not coincidence that the frequency and severity of fires is also increasing.

"It is site specific. On the Bridger-Teton right now, we don't have all the tools in our tool box to fight invasive plants and weeds. Right now we're overhauling our Forest level weed EIS to allow for aerial herbicide application. Funding is always an issue when it comes to the federal government. If we're treating invasive grasses particularly from the ground with either horseback or vehicle application, it's costing us somewhere between \$700 to \$1000 an acre for effective treatment of the cheatgrass. We can apply from an aerial platform right now at somewhere between \$18 and \$25 and acre. Without having that tool in the tool box, it's having major impacts to our effectiveness. We are actively involved to get that tool in the tool box for the Bridger-Teton... We know cheatgrass is a big issue, if for some sick twisted reason we get Ventenata or others like Medusahead, we don't have the tools we need to combat that. So we are taking those steps to do that."

Question: Have we learned ways to minimize the effect of a fire as they get started?

"In the Fontenelle Fire, and the Roosevelt- this latest 60,000+ acre fire, the regen(eration) patches, the old clear cuts, it burned right around them, it didn't touch them. We know that those healthy young growing timber stands are very resilient to fire. Unfortunately our agency has been heavily impacted by the Endangered Species Act... Our agency and our timber program on the Bridger-Teton is crippled by it. Where we are doing small scale timber harvest, we have since the 80s to now we have lost the majority of our capacity. From timber harvesters to the mills, there is not a mill within economical trucking distance of the Bridge-Teton now..."

"...I don't want to sound very pessimistic. The ecological land managers, the people on the ground, know we need to cut timber. At this point in the game between the impacts of Endangers Species Act, how we have to work through that and this mill timber harvest situation, how do we turn that around? We're working through it as an agency and we know that it's something we have to pay attention to."

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