

High Country Conservation



MARCH 2021

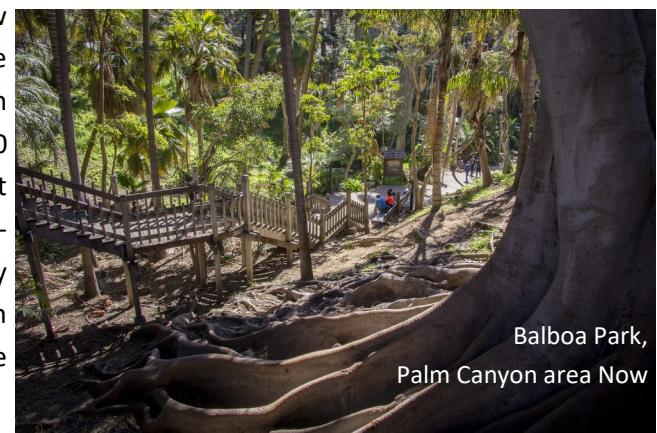
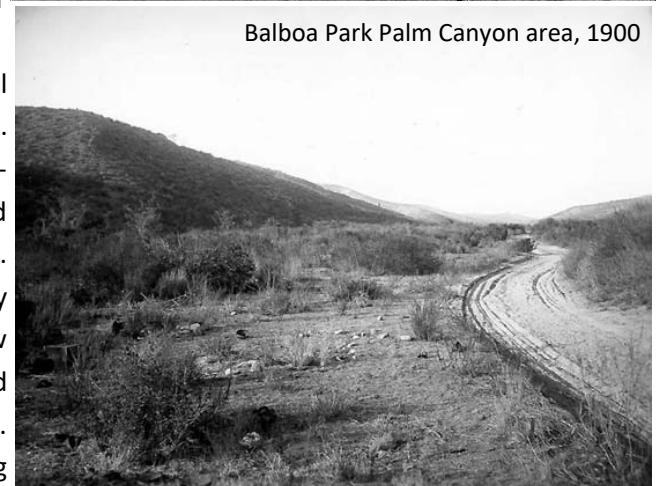
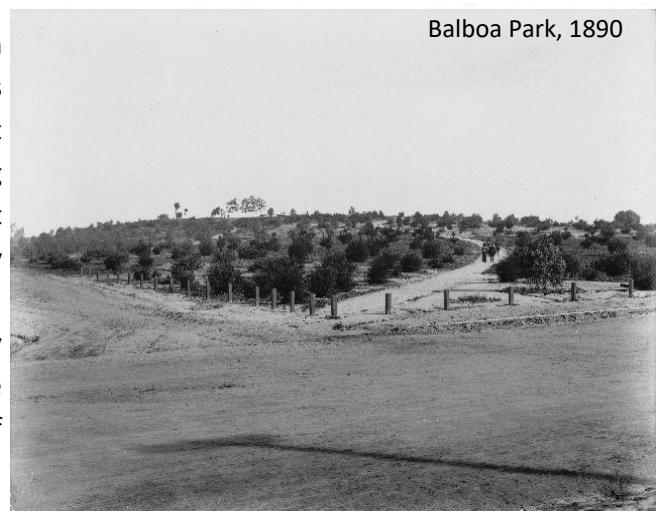
LARAMIE RIVERS CONSERVATION DISTRICT

Winter/Spring Edition

HOWARD'S FOREST & A PERSONAL LEGACY OF TREES ~ By Laura McGinley

A key feature of conservation districts is planting trees. Although an exact number is hard to know, it is a safe estimate that districts throughout the US have sold and planted billions of trees over the past seven decades. The seedling trees have had many uses, including reforestation, wildlife habitat, erosion control, and windbreaks. But beyond utilitarian, they were also affordable options for property owners wanting to increase vegetation for beauty and enjoyment. This Winter/Spring issue is dedicated to trees and includes articles by the LRCD staff to help you choose, plant, and care for trees to ensure survival. For my part, I want to share a personal story with a bit of family history. I treasure trees and attributed this love, in part, to when I was young and my dad's tree appreciation inspired him to plant a wide assortment of species in our yard here in Laramie.

In 2012, when doing some house clean-out, we came across a journal written by Bryant Howard, my great grandfather on my mother's side. At that time, I knew little about him but as I began reading, I was introduced to a man who had a tremendous sense of civic duty, dreamed big, and had enough capital to make things happen. Between 1870 and 1880, San Diego's population was approximately 2500, but Bryant Howard and his wife, Medora believed it would grow because of the beautiful Mediterranean-like climate. They helped established the first bank, utilities, streets, and the fire department. Then, during the late 1870's they traveled to Europe, Turkey, and along the eastern coast of the United States to establish trade for the new and growing port city. During their travels, they were influenced by the planned and planted landscapes in other cities and countries. When they returned to San Diego, the Howard's saw potential in the 1400 acres that the city had acquired for a park. For years, the land had sat undeveloped and collecting garbage. In 1887, when San Diego had expanded to a bustling city of 40,000 people, Bryant Howard successfully petitioned city officials to grant him 100 acres for an orphanage and an indigent women's home and pledged to elaborately beautify the surrounding area with trees and shrubs.



Once built, the Howard's oversaw a grand plan of landscaping by clearing brush, leveling the terrain, fertilizing the soil, and installing irrigation pipes. By 1893 an estimated 15,000 trees were growing in "Howard's Forest," and winding drives were installed for the public to enjoy viewing them. This resulted in a great enthusiasm for tree planting throughout the city.

But as transpires with even the best-made plans, the unexpected happened. A drought hit, land values plummeted, and the city suffered. By 1890, the population dwindled to 16,000, and a market crash in 1893 wiped out many of San Diego's businessman's fortunes, including Bryant Howard. As a result, he could no longer continue his plans for more trees and decorative park developments. Worse still, the city was hurting for funds and decided to claim the women's home and orphanage to settle debts. They then dug up the irrigation pipes and moved them to supply water to a new residential area. Some of the trees suffered and the park struggled along for the next decade. But as the city revived, City Park was renamed Balboa Park. The park became the site of the 1916 World's Fair and, later, the home for the beloved San Diego Zoo, many display gardens, museums, recreation, and more.

Just as San Diego grew out of low shrub mesas, steep canyons, and dry deserts of southern California, Laramie grew out of the fine dust of SE Wyoming's windswept high plains. I appreciate having a connection to Balboa park where I spent time as a child, and I am glad that Bryant and Medora Howard's dreams eventually came to fruition. It is an inspiration for me and hopefully to others, to keep planting and caring for their local urban forests so that they can provide joy and pride for many generations to come.

[Historic information obtained from San Diego Historic Society and from Bryant Howard's Personal Journal]

Balboa Park, San Diego 1915 with 1916 World's Fair buildings



Balboa Park Now
(note the Museum of Man building steeple from above)



Laramie, WY looking West, 1911



Laramie Now looking SW



Tree Installation and Establishment

By Martin Curry/Resource Specialist

Spring is an excellent time of the year to plant a tree. The key to success is giving a tree every chance to thrive by understanding the best planting practices. The most important considerations are location, species, planting method, and observing proper establishment care. Tree stress and physiological disorders are often a result of inadequate planting procedures.

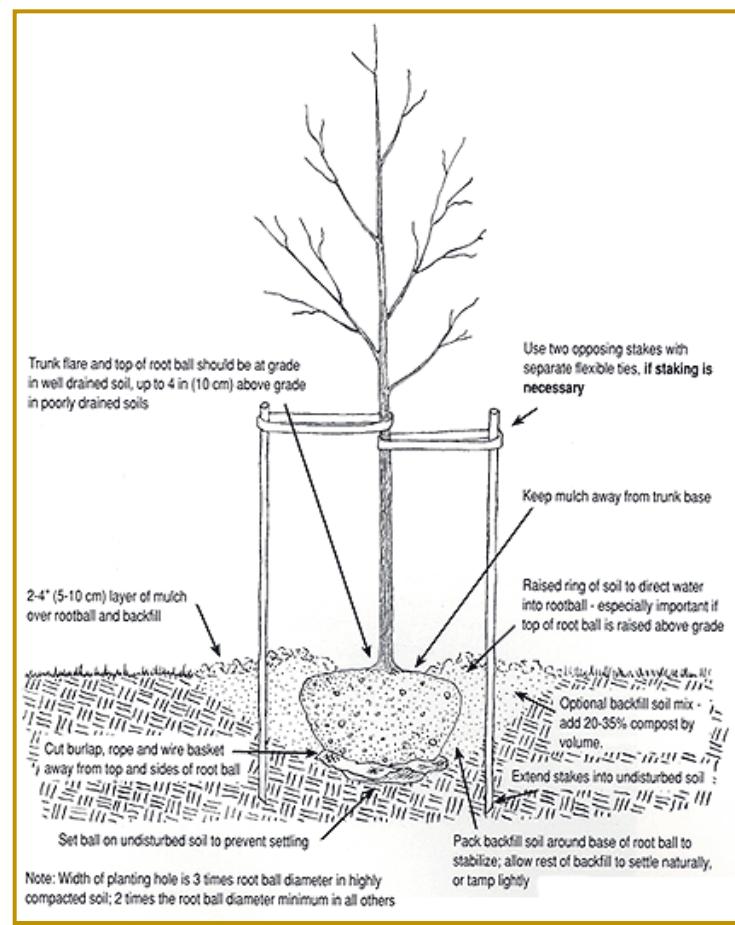
The first decisions to be made are location and species. Just as with real estate, location is one of the most critical factors. The location of the site can dictate what tree to plant. If the site is open, with no overhead or underground utilities, almost any tree can thrive. If utilities or structures are considered, then the field narrows to smaller trees in growth form or a species that does not require full sunlight. Never plant a large tree near a home or under overhead utilities.

Most trees are purchased as either balled and burlapped or containerized. The roots of containerized trees are often growing in circles inside the pot. At the time of planting, these roots should be separated and spread out to prevent girdling. If the roots are densely matted, they can be sliced vertically 2-3 times with a sharp knife. With a balled and burlapped tree, it is essential to remove the wire basket and string and the majority of the burlap. In Laramie, with the dry conditions and low amounts of organic matter in the soil, burlap takes a long time to decompose. If any of it is left exposed to the air, it acts as a wick to rob the tree of moisture around the root ball. With both of these types of packaging, it is important to plant the tree at the same soil depth that it has been growing in. The planting hole should be no deeper than the root ball but considerably wider with sloped sides to facilitate watering.

Most of the trees purchased have a limited root system due to the pruning effect of the digging. Fertilization is often not recommended when planting since excessive fertilizer salts in the root zone can be damaging.

Staking is sometimes necessary to ensure the stability of the tree. One of the most common mistakes is to stake the tree much too tightly. The tree, when staked, should be able to move a few inches in any direction. This will ensure that the tree will learn how to bend in the wind versus breaking. The second mistake is to tie the string directly to the tree. This often causes damage to the trunk and, in some cases, the tree's death by girdling. It is best to use a broad, flexible material to tie the tree to the stake. Check the trees every few months to ensure that the tie materials are not causing injury and that the tree can move in the wind. A good rule of thumb in staking trees is that the stakes should be left in for one year for every inch of trunk diameter. This is about the rate a healthy tree will reestablish the roots it has lost. After that time, remove the stakes and tie material.

Trees are an excellent addition to property. They can significantly affect the cost of cooling and heating a home and add value to the real estate price. Proper planning procedures and decision making as far as the location and species make growing a tree easy and trouble-free.



SPECTACULAR SHRUBS TO BRIGHTEN THE YARD

by Laura McGinley



Choosing plants that are hardy enough for Laramie's high plains climate is challenging. Many a homeowner found out through trial and error what would grow here. In the early days, pioneers brought several non-native species like lilac and yellow roses that they shared through cuttings. In 1903, UW professor and botanist Avan Nelson took it upon himself to plant a wider variety of shrubs and trees upon the new UW campus. Local residents benefitted from sharing cuttings from the expanding campus gardens. In the 1930s, Laramie further benefitted from the tree research and breeding at the High Plains Horticultural Research Station in Cheyenne. In 1945, after the Laramie Rivers Soil & Water District (now the Laramie Rivers Conservation District) was established, thousands of shrubs and trees were established in windbreaks and sold to residents for their properties. Throughout Laramie, many of the older standards flourish, including



lilacs, roses, native plum, caragana, and cotoneaster. However, there are many other choices these days. Shrubs that are native to North America are best, but some exotic shrubs do well and are not invasive.

Serviceberries (*Amelanchier spp.*)

are deciduous and native to the US. They offer four-season interest with their beautiful blossoms, fruits, autumn leaf colors, and bark color in winter. They are often called Juneberry because in some climates the fruit starts to ripen during that month. The purple fruits of the serviceberry are edible and can be eaten fresh or used to make jams or jellies. These shrubs are an excellent choice in the landscape if you want to attract birds to your garden since they love the fruits. Most varieties are hardy in Zone 4 and grow 10 to 20 feet tall.



Smokebush (*Cotinus coggygria*)

is a deciduous shrub that's also commonly known as Royal Purple Smokebush or Smoke Trees. Smokebush is an attractive landscape plant due to the beautiful purple-pink smokey plumes and the purple leaves on some cultivars. The plant is drought-tolerant, so it's useful where water conservation is important. Smokebush has several Zone 4 choices but, because of our high altitude, will require a more sheltered placement in the yard. Grows 10 - 15 ft tall.





Winterberry holly (*Ilex verticillata*) is an excellent winter interest plant that birds love. It is a native species found throughout much of the eastern US and Canada. Though it likes moist soils, it does very well in average garden soils. This is an easy plant to grow, and it has few serious insect or disease problems. Winterberry holly has tiny, white flowers. In autumn, female plants develop colorful berries that cover the branches. The berries remain on the plant for several weeks to months through winter. One male plant must be planted near 3-5 female plants to produce the fruit. Zone 3 hardy and 3-4 feet tall.



Ninebark (*Physocarpus opulifolius*) is a resilient and beautiful native shrub that few ornamentals can rival. The common name of Ninebark originates from the exfoliating bark that peels in layers when plants mature. Ninebark has colorful foliage that develops in mid-spring and lasts through fall. Clusters of pink or white flowers appear in summer and attract pollinators. The flowers turn into decorative red seed heads. Once the leaves drop, the bark and structure add visual interest to the winter landscape. Hardy in zones 2-7 and grows 6-8 feet tall.



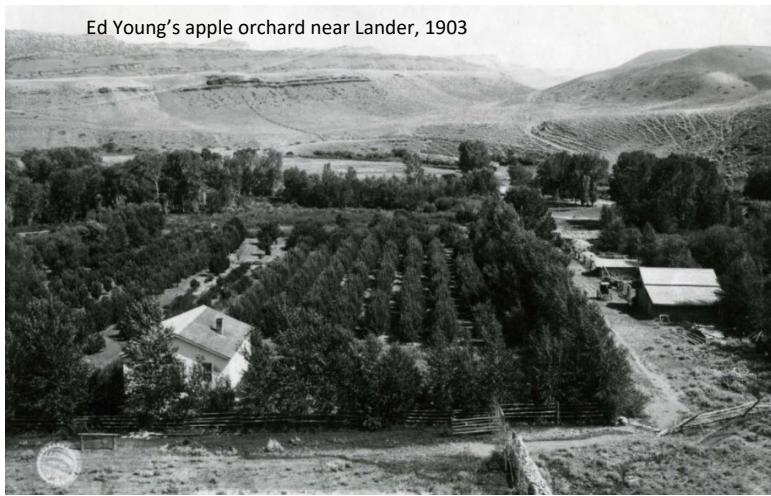
Rose Ruby Voodoo (*Rosa*)

is a newer rose variety that was developed for colder climates. Similar in appearance to old English Rose, it is highly fragrant and is a beautiful deep magenta color. The shrub is more upright than many of the other varieties that are found in the Laramie area and are suitable for sunny areas of the yard. Rose Ruby Voodoo will produce flowers continuously throughout the summer if deadheaded as flowers finish blooming. Hardy for Zones 4-9



GROWING FRUIT IN ALBANY COUNTY

by Trish Penny/Education Coordinator



An 1873 follow-up to the Homestead Act, the Timber Culture Act, gave homesteaders an additional 160 acres if they planted trees on 40 acres. With Wyoming's large open spaces, there were few stores nearby, and food was scarce at times, making fruit trees a valuable commodity.

One of the first documented commercial fruit growers in the 1880s was the Ed Young Orchard in Lander, WY. The operation was eventually home to 3000 apple trees. One of his most successful and prolific varieties was called "Wealthy." The Lander Valley provided a reasonable climate, good soils, plenty of water, and

the Wind River Mountains protected from the harsh winds making the valley an ideal location for growing fruits and vegetables. Newspapers and promoters began calling Lander "Apple City" and Ed Young the "Apple King of Wyoming." Other types of fruit, vegetables, and livestock were grown on the farm. Unfortunately, Mr. Young lost his farm during the Great Depression to unpaid taxes.

In 1892, Lander's residents purchased a 127-acre homestead from William Nichols with hopes of bringing the State Agricultural College to Lander. The State Agricultural College never materialized, and the Lander citizens donated the farm to the University of Wyoming in 1917. UW devoted the site to agricultural experiments of livestock, grains, fruits (apples, crabapples, plums, cherries, apricots, quinces, and peaches), vegetables, and grasses that could survive higher elevations until its closing in 1943. In the 1970s, the land was sold to Central Wyoming College. Their goal was to restore and revitalize the historic apple orchard at the Sinks Canyon Center.

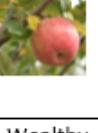
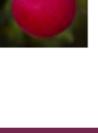
On the Eastern side of the state, the Cheyenne Horticulture Station was developed in 1949. Experimentation of survival and production rates with apple, pear, plum, and cherry trees planted in dryland and minimally irrigated soil conditions. The project included about 1300 varieties until 1960 when the project ended. The elevation was approximately 6100 Feet.



Many early varieties did not always survive the elevations, short growing seasons, less than ideal soil, and lack of precipitation/irrigation. But some did. These early homesteads and research centers provided valuable information and propagation opportunities from surviving heritage varieties.



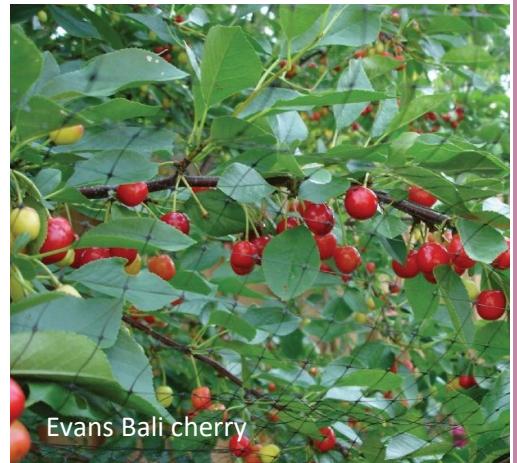
With an increase in interest in sustainable agriculture and raising food locally, many people are pursuing a comeback to some of the heirloom varieties. The Department of Ag, Central Wyoming College, University of Wyoming, home gardeners, and fruit growers are working towards finding and developing fruit trees that will succeed in our specific growing zones and conditions. When selecting fruit trees, consider planting location. Is there adequate space, are the soils appropriate, enough sun, and protection from weather and animals? Not all varieties will survive in our area. Make your selection based on the zone and elevation you want these trees to grow, harvest date, and the fruits intended use.

Common Name/Picture	Zone/Sun	Usage	Pollination	Size		Norkent	Zone 2 Full Sun	Fresh Eating Cooking Juice	Self-fertile Produces better with a pollinator Flowers mid-May	23' Height
APPLES										
Frostbite	Zone 3 Part to full sun	Fresh Eating Pies Cider	Blooms late May	15' Height						
Goodland	Zone 3 Full Sun	Fresh Eating Applesauce	Self-fertile	23' Height			Zone 3 Full Sun	Fresh Eating Cooking	Flowers in spring	20' Height
Harcourt	Zone 3 Full Sun	Fresh Eating Baking Juicing	Needs another tree or a crabapple within 500 feet	20' Height			Zone 3 Full Sun	Fresh Eating Baking	Needs another tree or a crabapple within 500 feet	20' Height
Haralson	Zone 3 Part to full sun	Fresh Eating Baking	Blooms late May	12' Height			Zone 3 Full Sun	Cooking		10' Height
Honeycrisp	Zone 4 Part to full sun	Fresh Eating	Blooms late May	20' Height			Zone 3 Full Sun	Fresh Eating Juicing	Needs another tree or a crabapple within 500 feet	15' Height
McIntosh	Zone 4 Full Sun	Fresh Eating Juicing	Self-fertile Flowers mid-May	23' Height			Zone 3B Full Sun	Fresh Eating Cooking		23' Height
							Zone 3 Full Sun	Fresh Eating Pies Preserves	Flowers mid-May Has a long intense flowering season	23' Height

Most trees will need a second tree for cross-pollination. Remember, both trees must bloom at similar times for adequate pollination. Crabapple trees generally have a longer flowering time and are frequently used as a pollinator for apple trees. Look for healthy rootstock. Full-size or semi-dwarf trees seem to be hardier. The reachable trees are convenient for pruning and harvesting but will need more protection and care.

Do not be surprised if your fruit tree only bears a productive crop every other year. I can only assume it has something to do with our growing conditions. Any fruit tree will require some maintenance such as watering, pruning, soil amendments, keeping an eye out for diseases and insects, and the occasional thinning during a heavy fruit load. Protecting the trees from wind, rodents, and wildlife is necessary. Purchase trees from your local nurseries or order from areas with similar conditions to Albany County. Those trees tend to be more robust and have a better survival rate.

Note: Consider elevation when selecting your trees. Lander is 5358 feet, and Cheyenne 6100 feet. Laramie is at 7200 feet, Centennial 8,074 feet, and Rock River is 6896 feet. If you are planting these trees in the countryside, the wind will be a problem—research which cultivars you want and know your conditions before purchasing.



**LARAMIE RIVERS
CONSERVATION DISTRICT**
5015 STONE ROAD
LARAMIE, WY 82070



NON-PROFIT ORG
U.S. POSTAGE
PAID
PERMIT #9
LARAMIE, WY
82070



*United States Department of Agriculture
Natural Resources Conservation Service*

As reported on 01 March 2021

Laramie Area Snowpack Report

Big Laramie River Drainage							Using 1981 - 2010 MEDIANs		Using 1981 - 2010 AVERAGEs	
Snow Course	Type	Snow Depth (inches)		Water Content (inches)		30 Year Median	% of Median	30 Year AVERAGE	2021	2020
Cameron Pass, CO	Manual Course	53	81	15.2	24.6	19.6	78%	126%	19.9	76% 124%
Chambers Lake, CO	Manual Course	23	37	5.5	8.9	5.8	95%	153%	6.1	91% 147%
Deadman Hill, CO	SNOTEL	54	56	12.9	15.4	12.4	104%	124%	12.2	106% 127%
Fox Park, WY	Manual Course	15	37	3.2	8.7	6.0	53%	145%	6.1	52% 142%
Joe Wright, CO	SNOTEL	53	65	14.5	18.1	16.6	87%	109%	16.6	87% 109%
McIntyre, CO	Manual Course	*	*	*	*	*	*	*	*	*
Rawah, CO	SNOTEL	33	40	8.2	11.0	8.8	93%	125%	8.5	97% 130%
Roach, CO	SNOTEL	47	46	10.9	12.4	12.4	88%	100%	12.8	85% 97%
* Data unavailable until May							Drainage Average:	85%	126%	85% 125%

Little Laramie River Drainage							Using 1981 - 2010 MEDIANs		Using 1981 - 2010 AVERAGEs	
Snow Course	Type	Snow Depth (inches)		Water Content (inches)		30 Year Median	% of Median	30 Year AVERAGE	2021	2020
Albany, WY	Manual Course	31	50	7.6	13.0	10.6	72%	123%	10.0	76% 130%
Brooklyn Lake, WY	SNOTEL	67	74	19.2	23.3	15.0	128%	155%	16.2	119% 144%
Cinnabar Park, WY	SNOTEL	56	69	14.5	20.9	17.1	85%	122%	16.9	86% 124%
Hairpin Turn, WY	Manual Course	45	52	11.6	14.8	11.5	101%	129%	11.8	98% 126%
Libby Lodge, WY	Manual Course	40	46	9.0	12.2	8.4	107%	145%	8.4	108% 146%
Drainage Average:							99%	135%	97%	134%

Crow Creek Drainage							Using 1981 - 2010 MEDIANs		Using 1981 - 2010 AVERAGEs	
Snow Course	Type	Snow Depth (inches)		Water Content (inches)		30 Year Median	% of Median	30 Year AVERAGE	2021	2020
Crow Creek, WY	SNOTEL	14	27	2.1	7.2	6.7	31%	107%	6.3	33% 114%
Pole Mountain, WY	Manual Course	26	38	5.4	8.8	6.6	82%	133%	6.7	81% 132%
Drainage Average:							57%	120%	57%	123%

Medicine Bow River Drainage							Using 1981 - 2010 MEDIANs		Using 1981 - 2010 AVERAGEs	
Snow Course	Type	Snow Depth (inches)		Water Content (inches)		30 Year Median	% of Median	30 Year AVERAGE	2021	2020
Deep Lake, WY	Manual Course	100	103	32.2	32.4	28.4	113%	114%	29.2	110% 111%
Medicine Bow, WY	SNOTEL	102	107	32.5	37.6	New	New	New	New	New
Moss Lake, WY	Manual Course	67	74	19.4	22.0	16.6	117%	133%	17.6	110% 125%
Sand Lake, WY	SNOTEL	80	79	22.6	24.6	21.2	107%	118%	22.0	103% 112%
Drainage Average:							112%	121%	108%	116%