

# BARNYARDS & BACKYARDS

## RI-PRF insurance for hay – Part 1

UW EXTENSION | AGRICULTURE & HORTICULTURE | USDA | RISK MANAGEMENT AGENCY

Pasture, Rangeland, Forage-Rainfall Index (RI-PRF) Pilot Insurance has become a popular tool for Wyoming producers to manage the risk of reduced rainfall.

RI-PRF policies in Wyoming insured \$52,538,533 of pasture and hay value in 2018, over one-third of the total crop insurance liability in the state.

RI-PRF insurance covers reduced forage production (hay and pasture) caused by less rainfall. National Oceanic and Atmospheric Administration (NOAA) rainfall data is used to establish the rainfall index for each 17-mile by 17-mile grid area.

The rainfall data is not from any one location in a grid area but multiple locations; the policy provides protection against a reduced precipitation index for a specific time period over a specific grid area.

Rainfall at a specific location within the grid area may not match the index, or it may pay an indemnity even though precipitation at a given location was not reduced.

Producers insure two-month index intervals and are allowed to insure up to 70 percent of their total coverage in one interval period (insured periods cannot be consecutive). For example, if a producer chooses to insure 50 percent of his coverage in the June-July interval, the next interval allowed would be the August-September interval.

RI-PRF uses a county per-acre base value as the basis for coverage. Producers can choose up to 90 percent coverage and set a productivity factor value between 60 and 150 percent of the county base value. Indemnities are paid when the value determined by the rainfall index drops below the insured amount.

### PRF Support Tool

One of the unique features of RI-PRF insurance are the resources available to help decide the level of coverage that might be most effective for an individual operation.

Available at [bit.ly/prfsupporttool](http://bit.ly/prfsupporttool), the PRF decision support tool allows users to select their grid locations from satellite imagery and then view the coverage and indemnity data for that grid area over a period up to 50 years (Figure 1). This tool can be a useful asset to compare various coverage levels and the estimated indemnity levels to determine the correct level of coverage.

From the map, the user selects the location/grid area for the policy. Selecting the Historical Indexes tab, the tool automatically loads the associated index values for the grid area selected.

The user can then select a range of years from 1948 to the present to view index values, depicted as a percentage of normal. From here, the user could select the Decision Support Tool tab and choose the desired coverage levels and intervals.

### RI-PRF for Wyoming non-irrigated hay

Non-irrigated (dryland) hay is one of the forage categories covered by RI-PRF policies (check for availability in your area). For illustrative purposes, assume we use grid number 28901 in Weston County to demonstrate options available under a RI-PRF policy for dryland hay (Figure 2).

We select from the menu on the left (in the decision support tool) non-irrigated, non-organic, 90 percent coverage level, and a productivity factor of 150 percent for 100 acres in sample year 2017. For the coverage level, we allocate 50 percent to the May-June interval and 50 percent to the July-August interval.

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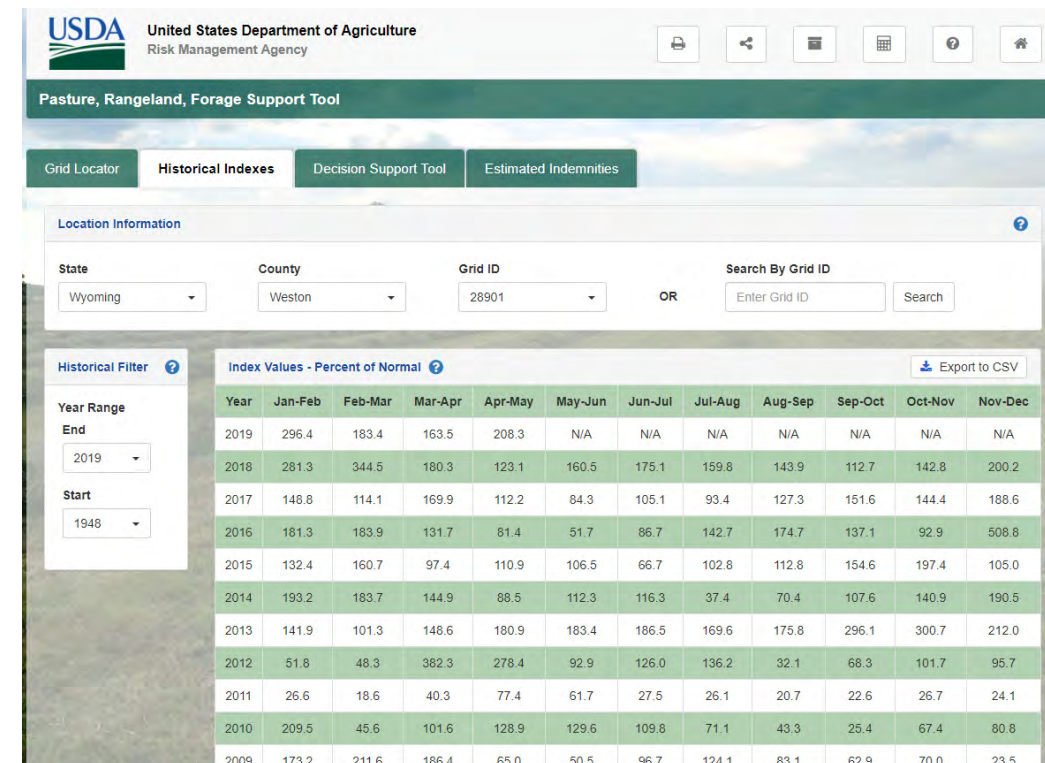


Figure 1. Grid area coverage and indemnity information can be generated for up to a 50-year period. This is for grid area 28901 in Weston County.

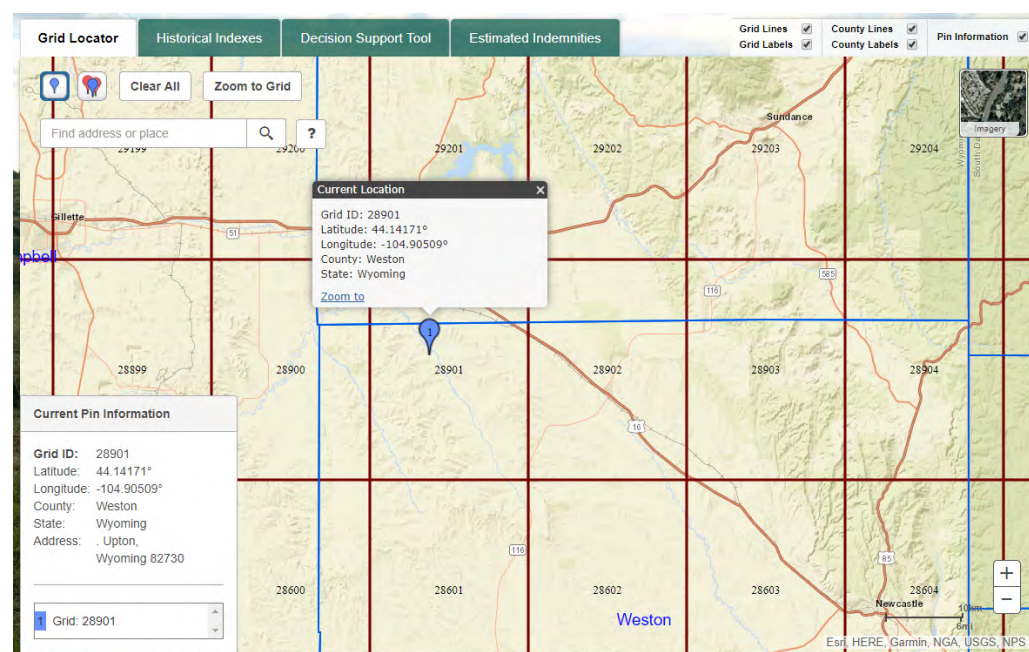


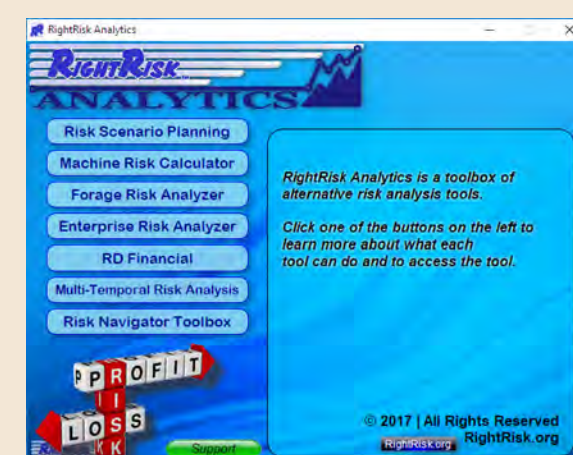
Figure 2. An example image generated by the tool grid locator shows grid 28901 in Weston County and others. Each grid is a 17-mile by 17-mile area.

### FOR MORE INFORMATION

Pasture, Rangeland, Forage-Rainfall Index (RI-PRF) insurance is one of the most-used policies available in Wyoming and could be an effective tool for managing drought risk. Visit a local crop insurance agent or visit [rma.usda.gov](http://rma.usda.gov) for more information in RI-PRF and the decision support tool and other resources. For more information on this and other risk management topics, as well as online tools, courses, and other resources, visit [RightRisk.org](http://RightRisk.org).

The Risk Scenario Planner (RSP) from RightRisk.org, and part of the RightRisk Analytics Toolbox, allows producers to use a partial budget format to examine the potential risks and returns of a change in business strategy and assess the associated uncertainty of that strategy.

Go to [RightRisk.org](http://RightRisk.org) and select the Resources tab, then Risk Management Tools to begin.



## Making the old new: Hugleculture creates garden growing beds

Hugleculture, or the old German spelling huglekultur, is a technique used for years in Eastern European gardens to create raised planting beds out of old garden debris and compost.

A similar method was done in 2004 to create the shade garden on the north end of the Casper extension office building. I also implemented this technique in my own garden as a way to avoid the high costs of organic planting medium and utilized a recently cut down tree and the sunflower stalks and squash vines from my garden.

Starting in a ditch or trough that needs built up or on a flat area, pile the coarsest woody materials. Turf can be cut and added on top of twigs and branches. Then add any dried leaves or grass clippings. Old hay or straw bedding could be used as well. Finally, a layer of compost or well-amended soil goes on top. Water the site to maintain moisture in the trough or in the layers of organic matter to enhance and promote the breakdown process and encourage a plethora of beneficial microorganisms that will mycorrhizae for the plants to be grown in the site.

### Layer by layer

We had shredded tree branches and bark from the local landfill when we did the extension office site. Layers of soil were removed to get down to a base for the new garden. Compost from the landfill and bark mulch was placed on top once the garden was laid out. Larger boulders and stones were placed in the garden before the initial layers of organic matter were added. This allowed us to develop a garden that looks like it grew up around existing stones rather than having the stones placed at the end of the process and look like cherries on top of the garden.

Over time, the garden has grown to look natural. This particular garden benefits from shade on the north of the building,

but the plants have also benefited from the well-amended soil provided by the breakdown process.

My new garden bed at home will have the end of this season and all winter to breakdown the woody materials to form a well-amended soil. It should be a great space to develop a wonderful new bed next season or the following year. It will have fully composted the organic matter and definitely be ready for planting.

We started with twigs and branches as well as the sunflower stalks and squash vine debris from last year. Then a layer of soil from another gardener's clean-up project was added. This was soil mixed with old mulch debris and leaves that had not composted. More soil from another project was added as well as some bagged soil amendment.

This project only cost the labor to haul and move the various components and the time to get it put in place. Now all it will take is water and time for the microorganisms to do what they do to organic matter, and it will be ready to plant in.

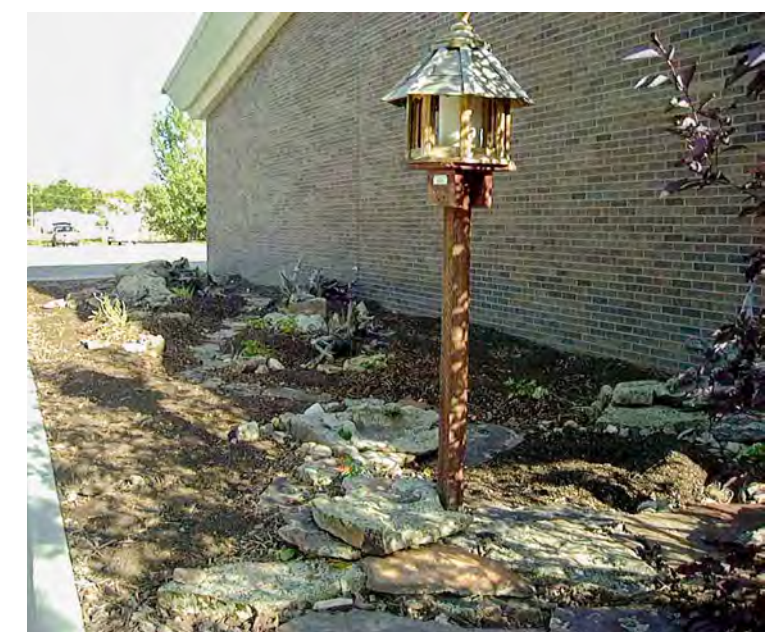
### Multiple uses

Hugleculture would be great for creating a nursery for young seedling trees before they are planted out into living windbreaks. It could be an area to start newly grafted trees, while providing a protected growing location prior to them being planted out in an orchard. Or, it could provide a beneficial area for a rural property where old trees need to be removed prior to planting new seedlings to create succession in previously established and aging windbreaks or for areas where additional windbreaks may be needed.

So, if contemplating a new planting site, maybe plan another year into the process to give the area additional benefits from well-amended soils.



The shaded area on the north side of the building in June looking west. Rocks were placed in the planting first so the area will look like the garden grew up around them.



A view of the finished garden looking east in late September. Plants will utilize the layers of decomposed organic matter.

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*Hay, continued*

The county base value is set at \$92 per acre, with a total dollar value of protection at \$124.20 (per acre).

This RI-PRF policy would provide a total protection level of \$12,420 at a premium cost of \$9.63/acre or (\$963 total). Next month, we will examine changing coverage levels and intervals, as well as the effect on total coverage and cost.