Forage is New York’s most extensive crop, unless you count trees. In 2015, USDA NASS estimated that there were 1.7 million acres in forage production in the state. About 530,000 acres have been reported as alfalfa and alfalfa hay mixes (68% of this is harvested as green chop or haylage). The remaining acres are mixed grasses.

Risk management options for forage have been dramatically improved in the last year. Producers can purchase Forage Production crop insurance if they farm in one of the 8 counties where it is available. In other counties producers can take advantage of the much improved Noninsured Crop Disaster Assistance Program known as NAP. Or producers can cover their forage acres, either hay/forage or pasture, using Pasture, Rangeland, Forage or PRF – the single-peril pilot product that pays when rainfall during the insured period is lower than the long-term average estimated rainfall.

This article provides information and examples for all three risk management options.

**Pasture, Rangeland and Forage (PRF)**

The PRF program insures pasture, hay and hay land forage against drought. It uses lack of precipitation to represent pasture and hay yield loss due to drought. The program indexes estimated rainfall during an insured two-month period with the historical “normal” rainfall in a 12-square mile grid where the insured acreage lies. Historical precipitation data based on more than 50 years of data from National Oceanic and Atmospheric Sciences Administration (NOAA) defines “normal” rainfall for each 12-square-mile area.

Once you are enrolled in the program, if NOAA data indicate that you are short precipitation, you automatically receive a payment about two months after the end of the insured period. The precipitation data are really proxies for plant growth; if you have soils that do well in drought situations, your actual losses may be far less than those with different soils. The following are some features of PRF:

- Covers only lack of precipitation for pasture, hay and hay land forage over two-month periods.
- No historical production records are required for yields or losses.
- Producers choose acreage and months to cover.
- If an indemnity payment is owed, payment is mailed automatically.
- Available in all New York counties.

**Steps For Coverage**

Every year, the USDA revises its hay price for New York State and makes it available via its web-based Information Browser in advance of the PRF enrollment date. As a statewide average, it may not reflect the value of hay or forage to you, but when you sign up for coverage, this value can be increased. The steps to setting the value of your hay coverage are outlined below.

1. Select at least two non-overlapping two-month intervals during the year when precipitation is important for the growth and production of your perennial forage crops. There are eleven inter-
vals, each covering a two-month period (Jan/Feb, Feb/Mar, etc.).

2. Choose the acreage to insure. A producer may insure the entire hay or pasture land during the year, or the portion(s) most important to their grazing and/or hay land operations. However, only 10% to 70% of total pasture and/or hay land acres may be insured in any one time interval.

3. There are two choices that can increase or decrease the insured value of this policy.
   a) Adjust your per acre “County Base Value” or production factor between 60% and 150%, to better match your farm’s forage production value.
   b) Adjust your deductible from 10% to 30%. The deductible sets the “precipitation trigger” to where a policy pays. A 10% deductible would trigger indemnity payments when rainfall falls below 90% of average rainfall. At a 30% deductible, there would be no payment until rainfall is below 70% of average rainfall.

With these two adjustments, the Pasture, Rangeland, Forage (PRF) Rainfall Index program can provide from approximately $120 to $387 of protection per acre for hay/haylage, and approximately $30 to $97 of protection per acre for pasture. The premium cost is subsidized by USDA 51% to 59% to make the protection more affordable.

| Pasture, Rangeland, Forage Crop Insurance Participation and Performance |
|-----------------------------|----------------|----------------|----------------|
|                             | 2016 | 2015 | 2014 | 2013 |
| Policies Sold               | 171  | 109  | 107  | 61   |
| Policies Earning Premiums   | 155  | 92   | 103  | 52   |
| Units Earning premium       | 669  | 405  | 399  | 231  |
| Policies Earning Indemnity  | 16   | 85   | 43   | 38   |
| Acres Covered               | 37,828 | 21,361 | 22,366 | 10,868 |
| Payouts to date             | $60,696 | $1,235,335 | $216,524 | $140,666 |


Hay, haylage and pasture acres reported to FSA by Farm and Tract Number(s) must match the acres reported to your crop insurance sales agent.

**Example: PRF guarantee, and potential payment:**

100 acres of hay land in Steuben Co., NY (Grid #26611) choosing a 10% two month drop from normal precipitation and with 110% of the (Steuben) County Base: $287 x 110% (production factor) x 90% (rainfall trigger) x 100 acres = $28,413.

A payment would occur when the actual precipitation for either of the two two-month intervals selected falls below the selected trigger.

**Example:** if the actual precipitation for the two-month interval is 3.4 inches and normal is 7.8 inches there is a 50% deficit.

The “selected trigger” is 90% coverage – 50% rainfall deficit in each interval = 40% rainfall deficit for payment

40% deficit for payment divided by 90% coverage chosen = 

\[
\frac{0.44 \times 28,413}{28,413} \text{ value for the 100 insured hay land} = 12,502 \text{ for a 2-month insured interval in this Steuben County example.}
\]

The premium for this example is $1,521 for the February-March and July-August insured periods, payable September 1 of the insured year.

**What record-keeping is required?**

Producers must submit an annual acreage report to their insurance agent by the enrollment deadline that includes your intended use (hay or pasture), grid ID location, and FSA Farm Number(s).

**How do I enroll?**

Your crop insurance agent will guide you through the enrollment steps, which must be completed before November 15, for the next calendar year, with coverage beginning January 1.
Noninsured Crop Disaster Assistance Program - NAP

The dramatically improved Non-insured Crop Disaster Assistance Program or NAP will now cover quality losses for hay. In addition to choices to buy-up yield protection from 50% to 65%, crop prices used are 100% of their values. (The old catastrophic coverage is still available, but in the case of a total loss situation, it pays only 27.5% of the value of the crop.) NAP is a disaster program available for all crops for which crop insurance is not available and is administered by the USDA Farm Service Agency (FSA).

Crops and grasses intended for grazing are excluded from buy-up coverage.

In the example, if a producer chose 65% yield protection and a drought resulted in a total crop of only 35% of normal or 77 tons on the 100 acres, he or she would receive a loss payment of $8338. (143 tons guarantee – 77 tons produced = 143 tons x $126.33 = $8338 payment.) A complete loss would pay $18,066.

<table>
<thead>
<tr>
<th>NAP Coverage Choices</th>
<th>Yield Guarantee per Acre in tons</th>
<th>Yield guarantee valued at 2016 NAP Market price ($/Acre)</th>
<th>Premium ($/acre)</th>
<th>Premium ($/crop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>1.1</td>
<td>$76.43</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>50%</td>
<td>1.1</td>
<td>$138.97</td>
<td>$7.30</td>
<td>$730</td>
</tr>
<tr>
<td>55%</td>
<td>1.2</td>
<td>$152.86</td>
<td>$8.03</td>
<td>$803</td>
</tr>
<tr>
<td>60%</td>
<td>1.3</td>
<td>$166.76</td>
<td>$8.75</td>
<td>$875</td>
</tr>
<tr>
<td>65%</td>
<td>1.4</td>
<td>$180.66</td>
<td>$9.48</td>
<td>$948</td>
</tr>
</tbody>
</table>

FSA notes that new transition and replacement yield rules have been developed to help producers build a more realistic, personal, actual production history for fuller coverage and protection.

NAP costs are comprised of both a service fee and premiums when “buy-up” is purchased.

- Administrative fee: $250/crop not to exceed $750/county (i.e.: pay for no more than three crops). After three crops- however more are grown- may be covered. For producers growing in multiple counties the maximum service fee will be $1875 (similar to multiple crops- pay for less than three counties).
- Buy-up Premium: In addition to the service fee above, the premium will be 5.25% (.0525) of the guarantee; not to exceed $6,563 (Maximum payment Limitation of $125,000 x .525 = 6,562.50, rounded).

Beginning Farmers, Socially Disadvantaged producers and Limited Resource farmers (according to producer certification on form CCC-860) are allowed to have service fees waived and premiums reduced by 50%.

Rates and yields can now be established for organic and direct market (retail) crops.

Hay quality losses associated with weather related yield loss are now available with NAP for producers who elect buy-up coverage. An example that addresses how a quality loss situation would be paid is available at: www.agriculture.ny.gov/AP/InsuranceByCrop.html.

Please note that NAP rules can change year to year. Changes could include items such as the number of years of acceptable records. Specific farm situations could make your coverage different from our example or your neighbor’s experience.

Forage Production Crop Insurance

In New York, forage is insurable through regular crop insurance in the following counties: Cattaraugus, Genesee, Jefferson, Livingston, Madison, Ontario, Orange and St. Lawrence.

The forage may be a stand of:
- Pure alfalfa
- Alfalfa and perennial grasses where 60 percent or more of the ground cover is alfalfa; or
- Mixed alfalfa and perennial grasses where alfalfa makes up more than 25 percent but less than 60 percent of the ground cover.

<table>
<thead>
<tr>
<th>2015 Forage Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>280,000 acres alfalfa hay</td>
</tr>
<tr>
<td>360,000 acres alfalfa haylage</td>
</tr>
<tr>
<td>290,000 acres mixed haylage</td>
</tr>
<tr>
<td>950,000 acres mixed hay</td>
</tr>
<tr>
<td><strong>2,020,000 Total forage acres</strong></td>
</tr>
</tbody>
</table>

Some producers report both dry hay, haylage or green chop for the same acres. Total forage acres is accurate, while dry and wet forage acres overlap.
This crop insurance program has not paid producers very often and has had a decline in enrollment. According to crop insurance agents, the problem is that quality is not a covered cause of loss. Another component of the lack of payouts is the very high number of CAT policies purchased. These policies are available for only the seemingly inexpensive administrative fee, but a loss of more than 50% yield is required to trigger a loss and then losses are paid only at 55% of the value of the crop. This is equivalent to the CAT program available through NAP.

It is always advisable to review your farm’s loss history, as documented by your records, when you pick your level of coverage. You can calculate what you might have received by using the USDA RMA’s Cost Estimator for previous years at www.rma.usda.gov/.

**Example: Forage Production Crop Insurance**

Assume an alfalfa-grass mixture with an approved yield of 4.0 tons per acre in Livingston Co., 65% coverage level, 100% share and a one-acre basic unit. Due to insurable cause of loss, the production to count is 1.0 ton

\[
\begin{align*}
4.0 \text{ Approved yield per acre} \\
\times 0.65 \text{ Coverage level} \\
= 2.60 \text{ Acre Guarantee} \\
- 1.00 \text{ Production-to-count} \\
= 1.60 \text{ Loss per acre} \\
\times $195 \text{ Price election} \\
= $312 \text{ Indemnity per acre}
\end{align*}
\]

$312 indemnity per acre x 100 acres = $31,200

The premium for Livingston County’s 100 acres is $674

To be insured, the forage crop must have been grown during one or more years after the year of establishment.

The policy does not insure any acreage that:
- Does not have an adequate stand at the beginning of the insurance period; or
- Is grown with a non-forage crop.

An adequate stand requires the following minimum living plants per square foot after the year of establishment:
- For pure alfalfa stands: 9 crowns per square foot in the first year, 6.0 in the second year, and 4.5 in the third and following years are considered a successfully established crop.
- For alfalfa-grass mixes: the standard in the first year is 6 plants per square foot. The standard in the second year is 4.0 plants per square foot and the standard in the third and later years is 3.0 plants per square foot.

You are protected against the following causes of loss on your annual production history:
- Adverse weather conditions including natural perils such as hail, frost, freeze, wind, drought, and excess precipitation;
- Failure of irrigation water supply if caused by insured peril during the insurance period;
- Insect damage except for insufficient or improper application of control measures;
- Plant disease except for insufficient or improper application of control measures;
- Volcanic eruptions; or
- Wildlife

Coverage levels range from 50% to 75% of your average yield. Premium subsidies are available of 55% to 67% based on the percent of the coverage you buy.

<table>
<thead>
<tr>
<th>Risk Management Option</th>
<th>Sign-up Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAP 65-all forages</td>
<td>September 30</td>
</tr>
<tr>
<td>(up to 65% coverage at 100% value)</td>
<td></td>
</tr>
<tr>
<td>Forage Production</td>
<td>September 30</td>
</tr>
<tr>
<td>(8 counties only)</td>
<td></td>
</tr>
<tr>
<td>Pasture, Rangeland and Forage (PRF) (Hay, forage, grazing)</td>
<td>November 15</td>
</tr>
</tbody>
</table>

To discuss your risk management options, contact a crop insurance agent. To learn more about the cost and potential benefits of NAP, contact your local USDA Service Center, where your county Farm Service Agency (FSA) is located. [www.fsa.usda.gov/](http://www.fsa.usda.gov/). FSA can also provide a list of crop insurance agents. Or you can look at a list of agents at: [www.rma.usda.gov/tools/agent.html](http://www.rma.usda.gov/tools/agent.html).

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