**NAP: Making Sense of Calculations**

In this example, we walk Sami, a rancher who also grows spinach, squash, and carrots, through the process of her NAP calculations for her grazing acreage and several vegetable crops. As a woman, she can file form CCC-860 and receive a waiver for the service fee and half of the buy up premium. The full calculations without the waiver will be shown here. See “NAP Forms and Paperwork” for more information on how to sign up for NAP, report acreage, and file for loss at your FSA office.

### Cost of NAP Policy to Producer

Sami selects basic coverage for carrots (50% of yield and 55% of price, or 50/55), 55/100 buy-up and the Direct Market Price Option for spinach, 65/100 buy-up for winter squash, and basic coverage for native grass grazing (the buy-up option is not available for grazing).

**Spinach: 55/100 buy up with Direct Market Option\(^1\)**

\[
\text{0.5 ac} \times 4,012 \text{ lbs/ac approved yield} \times 55\% \text{ coverage level} \times \$4 \text{ Direct Market Price} \times 100\% \text{ share}=\$4,413.20 \\
\$4,413.20 \times 5.25\%= \$231.69 \text{ Premium}
\]

**Carrots: Basic Coverage**

No Premium: 0.5 acres

**Native Grass Grazing: Basic Coverage**

No premium: 2,500 acres

**Squash (Winter): 65/100 buy up**

\[
\text{0.5 ac} \times 29,000 \text{ lbs/ac approved yield} \times 65\% \text{ coverage level} \times \$0.32 \text{ FSA average price} \times 100\% \text{ share}=\$3,016 \\
\$3,016 \times 5.25\%= \$158.34 \text{ Premium}
\]

The values used in this calculation are estimations from FSA MT Exhibit 10 and other FSA sources, such as fsa.usapas.com.

**Total Service Fee:** $750 ($250 per crop until $750 maximum per county)

**Total Cost to Producer:** $750 + $158.34 + $231.69 = $1,140.03

### Loss Scenario and Payment Calculation

A hail storm damages Sami’s spinach, squash, and carrots in mid-July (July 20). Sami loses 50% of her spinach, 50% of her squash, and 10% of her carrots. She files a Notice of Loss within 15 days of the damage.

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\(^1\) The Direct Market Price Option is not currently available in Montana. When electing the Direct Market Price option, the FSA state committee will set this price. The higher of direct market price or FSA average price will be chosen to calculate premiums and payments.
Sami’s native grass grazing is also cut short by drought with a 60% loss of grazing days. Again, Sami files notice of loss. She then files an Application for Payment within 60 days after the coverage period ends, and receives the following payments:

**Spinach: 55/100 buy up with Direct Market Option**

0.5 eligible ac x 100% share x 4,012 lbs/ac approved yield x 55% coverage level= 1,103.3 lbs disaster level  
1,103.3 disaster level- 1,003 lbs of production= 100.3 Net Production for Payment  
100.3 Net Production for Payment x $4 Direct Market Price x 100% price level coverage= **$401.20 Payment**

**Carrots: Basic Coverage**

**No Payment:** Under basic coverage a producer need to receive a loss of at least 50% to receive a payment

**Native Grass Grazing: Basic Coverage**

2,500 eligible acres / 32.5 normal carrying capacity [Ac/AU] x 198 day Grazing Period= 15,230.77

Expected AUD

15,230.77 Expected AUD x 0.1 Grazing loss [.1= 60%-50%]= 1,523.08 AUD Eligible for Payment  
1,523.08 AUD Eligible for Payment x $1.4130 AUD Value x 55% price coverage level= **$1,183.65 Payment**

**Squash (Winter): 65/100 buy up**

0.5 eligible ac x 100% share x 29,000 lbs/ac approved yield x 65% coverage level= 9,425 lbs disaster level  
9,425 lbs disaster level- 7,250 lbs of production= 2,175 Net Production for Payment  
2,175 Net Production for Payment x $0.32 FSA average price x 100% price level coverage= **$696 Payment**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Premium</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinach (55/100 DM Option)</td>
<td>($231.69)</td>
<td>$401.20</td>
</tr>
<tr>
<td>Carrots (Basic)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Native Grass Grazing (Basic)</td>
<td>$0</td>
<td>$1,183.65</td>
</tr>
<tr>
<td>Squash (65/100)</td>
<td>($158.34)</td>
<td>$696</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>($372.03)</td>
<td><strong>$2,280.85</strong></td>
</tr>
<tr>
<td>Service Fee</td>
<td>($750)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Payment Less Fees and Premiums</strong></td>
<td><strong>$1,158.82</strong></td>
<td></td>
</tr>
</tbody>
</table>

In this example, Sami paid $1,158.82 in NAP insurance premiums and received indemnities of $2,280.85 for a cash flow gain of $1,122.03.

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2 NAP grazing payments are calculated differently that crops. Only basic level coverage is available, and payment is calculated in AUD (Animal Unit Day) units. Grazing losses are calculated by the AUD value that is set by FSA annually at a national level. The 2015 AUD Value is used here. Carrying capacity and grazing period is set by FSA County Committee, and for the purpose of this example are 2015 values from MT Exhibit 3 for Gallatin County.