Extension Collaborations in NE Washington

Nils Johnson
WSU Stevens Co. Extension Ag & Food Systems Coordinator
9/13/17
Outline

• Farm to Food Pantry Program
  • Understanding Value
    • Cash Value
    • Nutritional and Value
    • Food Pantry Client Preferences
  • Exercise: Nutritional Daily Portions Eaten
  • Data – Based Produce Decision Making
  • Contact Info
Regional Food Systems Infrastructure
Basic Components of a Complete System

- Regional Markets
- Local Food Markets
- Regional Growers
- Food Storage & Aggregation
- Shipping & Receiving
- Farm Training & Incubator
- Food Product Incubator
- Food Processing Facility

Food Systems Director
Regional Food Systems Infrastructure
Farm to Food Pantry (F2FP) & Farm to School

Regional Markets

Local Food Markets

Food Pantries

Institutions

Regional Growers

Food Product Incubator

Farm to Food Pantry & Farm to School

Shipping & Receiving

Food Storage & Aggregation

Food Processing Facility

Food Systems Director
NEW Hunger Coalition

- Ferry, Stevens, and Pend Oreille Counties
- ~57,000 People
- 15 member food pantries

- Many small produce farmers/growers
- Many Schools/Districts with lunch programs
Delivery Task – Our Territory

Produce Supply and Need

- Food Pantries
- Schools
- Farmers/Growers

Key Ideas

1. Share the shipping infrastructure
2. Efficiency down to small scale
**Farm to Food Pantry Program (2016)**

- **Local Farmers** → **Contract** → **Donations** → **4683 Lbs** → **Pickup & Delivery** → **Distribution Plan** → **Food Pantry**

- **Hunger Coalition**
  - **Donations**
  - **Gleaners**
    - **Gleaning Schedule** → **7203 Lbs** → **Food Pantry**

- **Average Wholesale Produce Price:** $1.91 per Lb
- **Average Cash Cost:** 33¢ per Lb
- **Total:** 16693 Lbs

- **Contract Amount:** $5500

**Local Farmers**

**Donations**

**Gleaners**

**Food Pantry**

**Hunger Coalition**

**Average Wholesale Produce Price:** $1.91 per Lb

**Average Cash Cost:** 33¢ per Lb
Delivering to the Wellpinit Food Pantry in 10° F Weather
Outline

• Farm to Food Pantry Program
• Understanding Value
  • Cash Value
    • Nutritional and Value
    • Food Pantry Client Preferences
• Exercise: Nutritional Daily Portions Eaten
• Data – Based Produce Decision Making
• Contact Info
One of our Farmers: John Progar (Meadowlark Farms)
Regional Food Systems Infrastructure
Measuring Value – Example: Delivery in January 2017

Cost and Retail Value of Produce Delivered ($)

Cost ($)
Value Delivered

Cost ($) Per Leg of Trip

Ford Wellpinit Hunters lunch break Inchelium Kettle Falls Colville Chewelah Valley South County Loop

Purchases Miles Time
Outline

• Farm to Food Pantry Program

• Understanding Value
  • Cash Value
  • Nutritional and Value
  • Food Pantry Client Preferences

• Exercise: Nutritional Daily Portions Eaten
• Data – Based Produce Decision Making
• Contact Info
## Value of Produce
### Nutrition – Naturally Nutrient Rich (NNR) Score
(from Adam Drewnowski, University of Washington)

<table>
<thead>
<tr>
<th>Produce</th>
<th>Amount needed to be eaten to get Recommended DV from only this produce item</th>
<th>NNR Score</th>
<th>Grams need for 2000 kcal Day:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn, Raw Yellow</td>
<td>Multiple of 2000 kcal Day: 5.30</td>
<td>5.334</td>
<td>12,326 Grams or 5.60 Lbs</td>
</tr>
</tbody>
</table>

### USDA National Nutrient Database Data

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Per 100 g</th>
<th>Per Gram</th>
<th>Source: Drewnowski 2005</th>
<th>per 100 g</th>
<th>% DV</th>
<th>Label Thresh</th>
<th>If Multiples Eaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protien</td>
<td>3.270g</td>
<td>3.270E-02g</td>
<td>65g</td>
<td>5.031%</td>
<td>0.010000%</td>
<td>Protien</td>
<td>X</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>187.000UI</td>
<td>1.870E+00UI</td>
<td>5000UI</td>
<td>3.740%</td>
<td>Vitamin A</td>
<td>X</td>
<td>122158.84</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>6.800mg</td>
<td>6.800E-02mg</td>
<td>75mg</td>
<td>9.067%</td>
<td>Vitamin C</td>
<td>X</td>
<td>4442.14</td>
</tr>
<tr>
<td>Calcium</td>
<td>2.000mg</td>
<td>2.000E-02mg</td>
<td>1300mg</td>
<td>0.154%</td>
<td>Calcium</td>
<td>X</td>
<td>1306.51</td>
</tr>
<tr>
<td>Iron</td>
<td>0.520ug</td>
<td>5.200E-03mg</td>
<td>18mg</td>
<td>2.889%</td>
<td>Iron</td>
<td>X</td>
<td>339.69</td>
</tr>
<tr>
<td>Zinc</td>
<td>0.460ug</td>
<td>4.600E-03mg</td>
<td>11mg</td>
<td>4.182%</td>
<td>Zinc</td>
<td>X</td>
<td>300.50</td>
</tr>
<tr>
<td>Folate</td>
<td>42.000ug</td>
<td>4.200E-01ug</td>
<td>400ug</td>
<td>10.500%</td>
<td>Folate</td>
<td>X</td>
<td>27436.74</td>
</tr>
<tr>
<td>Thiamine</td>
<td>0.155mg</td>
<td>1.550E-03mg</td>
<td>1.2mg</td>
<td>12.917%</td>
<td>Thiamine</td>
<td>X</td>
<td>101.25</td>
</tr>
<tr>
<td>Riboflavin</td>
<td>0.055mg</td>
<td>5.500E-04mg</td>
<td>1.3mg</td>
<td>4.231%</td>
<td>Riboflavin</td>
<td>X</td>
<td>35.93</td>
</tr>
<tr>
<td>Vitamin B-12</td>
<td>0.000ug</td>
<td>0.000E+00ug</td>
<td>2.4ug</td>
<td>0.000%</td>
<td>X</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Vitamin D</td>
<td>0.000ug</td>
<td>0.000E+00ug</td>
<td>10ug</td>
<td>0.000%</td>
<td>X</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Vitamin E</td>
<td>0.070mg</td>
<td>7.000E-04mg</td>
<td>15mg</td>
<td>0.467%</td>
<td>Vitamin E</td>
<td>X</td>
<td>45.73</td>
</tr>
<tr>
<td>MUF A</td>
<td>0.423g</td>
<td>4.230E-03g</td>
<td>20g</td>
<td>2.115%</td>
<td>MUF A</td>
<td>X</td>
<td>276.33</td>
</tr>
<tr>
<td>Potassium</td>
<td>270.000mg</td>
<td>2.700E+00mg</td>
<td>3500mg</td>
<td>7.714%</td>
<td>Potassium</td>
<td>X</td>
<td>176379.07</td>
</tr>
<tr>
<td>Fiber</td>
<td>2.000g</td>
<td>2.000E-02g</td>
<td>25g</td>
<td>8.000%</td>
<td>Fiber</td>
<td>X</td>
<td>1306.51</td>
</tr>
<tr>
<td>Vitamin B-5</td>
<td>0.717mg</td>
<td>7.170E-03mg</td>
<td>5mg</td>
<td>14.340%</td>
<td>Vitamin B-5</td>
<td>X</td>
<td>468.38</td>
</tr>
<tr>
<td>Energy</td>
<td>86.000kcal</td>
<td>8.600E-01kcal</td>
<td>2000kcal</td>
<td>4.300%</td>
<td>Energy</td>
<td>kcal</td>
<td>10600</td>
</tr>
</tbody>
</table>
Regional Food Systems Infrastructure
Measuring Performance: Nutritional Value

NNR for Produce Delivered through 2016 N.E.W. Hunger Coalition F2FP Program

Produce Regularly Available at Food Pantries from BigAg-BigShipping Sources

Average NNR: 2.35

Produce the 2016 F2FP Delivered the Most Of

Average NNR: 13.02
Outline

• Farm to Food Pantry Program

• Understanding Value
  • Cash Value
  • Nutritional and Value

• Food Pantry Client Preferences
  • Exercise: Nutritional Daily Portions Eaten
  • Data – Based Produce Decision Making

• Contact Info
Outline

• Farm to Food Pantry Program
• Understanding Value
  • Cash Value
  • Nutritional and Value
  • Food Pantry Client Preferences
• Exercise: Nutritional Daily Portions Eaten
  • Data – Based Produce Decision Making
• Contact Info
Your task...
- $100 of produce for your Food Pantry Clients
- Can buy up to 2 kinds of produce

Your Goal...
Optimize value on produce that will actually be eaten

Your Client Base...
At this point, you don’t have an survey data, only the experience of members on your team, so use your best judgement.
Exercise: Person Daily Portions Eaten
Worksheet 1: Purchase your Produce

- Use NNR Scores & Pricelist (Handout 1)
- Decide how much of each produce item you can buy
- Hint: Use Naturally Nutrient Rich Score (NNR) to guide your decision

<table>
<thead>
<tr>
<th>Produce Item</th>
<th>NNR Score</th>
<th>Pricelist $ per Lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus, Raw</td>
<td>6.38</td>
<td>$1.60</td>
</tr>
<tr>
<td>Beets, Raw</td>
<td>4.72</td>
<td>$1.00</td>
</tr>
<tr>
<td>Broccoli, Raw</td>
<td>13.37</td>
<td>$2.10</td>
</tr>
<tr>
<td>Cabbage, head type</td>
<td>6.20</td>
<td>$0.80</td>
</tr>
<tr>
<td>Carrot, mature, orange</td>
<td>19.57</td>
<td>$0.70</td>
</tr>
<tr>
<td>Cauliflower, Raw</td>
<td>6.10</td>
<td>$1.10</td>
</tr>
<tr>
<td>Celeriac, raw</td>
<td>3.17</td>
<td>$2.10</td>
</tr>
<tr>
<td>Chard, Swiss, Raw</td>
<td>14.34</td>
<td>$2.10</td>
</tr>
<tr>
<td>Collards, raw</td>
<td>16.49</td>
<td>$2.10</td>
</tr>
<tr>
<td>Coriander, Raw</td>
<td>17.68</td>
<td>$5.10</td>
</tr>
<tr>
<td>Corn, sweet;yellow, raw</td>
<td>5.33</td>
<td>$0.60</td>
</tr>
<tr>
<td>Cucumber, With Peel, Raw</td>
<td>1.85</td>
<td>$0.50</td>
</tr>
<tr>
<td>Dill Weed, Fresh</td>
<td>27.53</td>
<td>$7.05</td>
</tr>
<tr>
<td>Garlic, Raw</td>
<td>8.98</td>
<td>$5.10</td>
</tr>
<tr>
<td>Greens, mixed</td>
<td>15.15</td>
<td>$3.30</td>
</tr>
<tr>
<td>Kale, Raw</td>
<td>30.20</td>
<td>$2.30</td>
</tr>
<tr>
<td>Lettuce, green leaf, raw</td>
<td>12.84</td>
<td>$1.50</td>
</tr>
<tr>
<td>Melon, Cantaloupe, Raw</td>
<td>9.07</td>
<td>$0.50</td>
</tr>
<tr>
<td>Onion, bulb, sweet</td>
<td>1.98</td>
<td>$0.40</td>
</tr>
<tr>
<td>Pepper, bell type</td>
<td>18.00</td>
<td>$0.60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>Produce Item</th>
<th>Price per Lb (from price list)</th>
<th>$ Spent (Total: $100)</th>
<th>Lbs Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Celeriac</td>
<td>$2.10 per Lb</td>
<td>$100 spent</td>
<td>$100 $2.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 47.6 Lbs purchased</td>
</tr>
</tbody>
</table>
Exercise:
Person Daily Portions Eaten

- Average Family Defined
  - 2 older adults, 2 teenagers
- USDA MyPlate (cups):
  - Recommended daily servings (fruit & vegetables)
    - Vegetables: 2.25 Cups/day
    - Fruit: 1.75 Cups/day
- USDA AMS data to convert Cups to Lbs
- Result: Person Daily Portions per Lb (each produce item)
Exercise: Person Daily Portions Eaten
Worksheet 2: Calculate “Daily Portions”

• Use Handout 2: Daily Portions per Lb
• Convert your “Pounds” into “Daily Portions”
• Hint: Use the Example as a guide

<table>
<thead>
<tr>
<th>Nutritional Daily Portion Exercise</th>
<th>Nutritious Daily Portions Eaten Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Handout 2: Daily Portions per Lb for each produce item</strong></td>
<td><strong>Worksheet 2</strong> Number of Daily Portions Purchased</td>
</tr>
<tr>
<td>Produce Item</td>
<td>Daily Portions per Lb</td>
</tr>
<tr>
<td>1 Asparagus, Raw</td>
<td>1.35</td>
</tr>
<tr>
<td>2 Beets, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>3 Broccoli, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>4 Cabbage, head type</td>
<td>0.86</td>
</tr>
<tr>
<td>5 Carrot, mature, orange</td>
<td>0.55</td>
</tr>
<tr>
<td>6 Cauliflower, Raw</td>
<td>1.19</td>
</tr>
<tr>
<td>7 Celeriac, raw</td>
<td>0.70</td>
</tr>
<tr>
<td>8 Chard, Swiss, Raw</td>
<td>3.35</td>
</tr>
<tr>
<td>9 Collards, raw</td>
<td>0.70</td>
</tr>
<tr>
<td>10 Coriander, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>11 Corn, sweet,yellow, raw</td>
<td>0.55</td>
</tr>
<tr>
<td>12 Cucumber, With Peel, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>13 Dill Weed, Fresh</td>
<td>0.24</td>
</tr>
<tr>
<td>14 Garlic, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>15 Greens, mixed</td>
<td>1.84</td>
</tr>
<tr>
<td>16 Kale, Raw</td>
<td>0.55</td>
</tr>
<tr>
<td>17 Lettuce, green leaf, raw</td>
<td>0.55</td>
</tr>
<tr>
<td>18 Melon, Cantaloupe, Raw</td>
<td>2.02</td>
</tr>
<tr>
<td>19 Onion, bulk, sweet</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Example: Celeriac 47.6 Lbs purchased 0.70 Portions per Lb 47.6 Lbs x 0.70 Portions per Lb = 33.3 Daily Portions
Measuring Value

Nutritious Daily Portion: Person Daily Portion – NNR Product

- Is a 1-number measure of the nutritional value of any food product
- Based on USDA data on nutrient concentrations versus calories in food

Examples:

1 lbs of Spinach:
- NNR Score = 22.80
- MyPlate PDP = 2.25 Cups
- Cups/Lb = 7.54
- Cost = $2.70/lb
NDP per Lb: 22.80 * 7.54 / 2.25 = 76.67
NDP per $: 76.67 / 2.70 = 28.40

1 lbs of Corn on the Cob:
- NNR Score = 5.33
- MyPlate PDP = 2.25 Cups
- Cups/Lb = 1.54
- Cost = $0.70/lb (0.50/Ear)
NDP per Lb: 5.33 * 1.54 / 2.25 = 3.65
NDP per $: 3.65 / 0.70 = 5.22

Spinach 28.40

Corn 5.22
Exercise: Person Daily Portions Eaten
Worksheet 3: Calculate “Nutritious Daily Portions”

- Use Handout 1: Naturally Nutrient Rich (NNR) Score & Pricelist
- Multiply your “Daily Portions” by their corresponding score

<table>
<thead>
<tr>
<th>Produce Item</th>
<th>NNR Score</th>
<th>Price per lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus, Raw</td>
<td>6.38</td>
<td>$1.60</td>
</tr>
<tr>
<td>Beets, Raw</td>
<td>4.72</td>
<td>$1.00</td>
</tr>
<tr>
<td>Broccoli, Raw</td>
<td>13.37</td>
<td>$2.10</td>
</tr>
<tr>
<td>Cabbage, head type</td>
<td>6.20</td>
<td>$0.80</td>
</tr>
<tr>
<td>Carrot, mature, orange</td>
<td>24.67</td>
<td>$0.70</td>
</tr>
<tr>
<td>Cauliflower, Raw</td>
<td>7.96</td>
<td>$1.10</td>
</tr>
<tr>
<td>Celeriac, raw</td>
<td>3.72</td>
<td>$2.10</td>
</tr>
<tr>
<td>Chard, Swiss, Raw</td>
<td>14.34</td>
<td>$2.10</td>
</tr>
<tr>
<td>Collards, raw</td>
<td>16.49</td>
<td>$2.10</td>
</tr>
<tr>
<td>Coriander, Raw</td>
<td>17.68</td>
<td>$5.10</td>
</tr>
<tr>
<td>Corn, sweet, yellow, raw</td>
<td>5.33</td>
<td>$0.80</td>
</tr>
<tr>
<td>Cucumber, With Peel, Raw</td>
<td>1.85</td>
<td>$0.50</td>
</tr>
<tr>
<td>Dill Weed, Fresh</td>
<td>27.53</td>
<td>$7.05</td>
</tr>
<tr>
<td>Garlic, Raw</td>
<td>8.98</td>
<td>$5.10</td>
</tr>
<tr>
<td>Greens, mixed</td>
<td>15.15</td>
<td>$3.30</td>
</tr>
<tr>
<td>Kale, Raw</td>
<td>30.40</td>
<td>$2.30</td>
</tr>
<tr>
<td>Lettuce, green leaf, raw</td>
<td>12.84</td>
<td>$1.50</td>
</tr>
<tr>
<td>Melon, Cantaloupe, Raw</td>
<td>9.07</td>
<td>$0.50</td>
</tr>
<tr>
<td>Onion, bulb, sweet</td>
<td>1.98</td>
<td>$0.40</td>
</tr>
<tr>
<td>Pepper, bell type</td>
<td>19.00</td>
<td>$4.60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>Produce Item</th>
<th>Daily Portions Purchased (from Worksheet 2)</th>
<th>Naturally Nutrient Rich Score (from Handout 1)</th>
<th>Nutritious Daily Portion Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Celeriac</td>
<td>33 1/3 Daily Portions</td>
<td>NNR Score: 3.72</td>
<td>124 Nutritious Daily Portions</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example:
Celeriac 33 1/3 Daily Portions NNR Score: 3.72 = 124 Nutritious Daily Portions
Your Food Pantry Clients didn’t all want that produce item you gave them!

$ we’re currently spending

$ we should be spending

The dish tastes yucky... isn’t really “food”

Can’t figure out how to make that into “food”

Can’t envision making “food” out of that...

Yay! It is “food”

Into Clients Tummies!

Into Food Pantry Garbage

Into Household Garbage

Into Household Garbage
Stevens County General Public
2016 Public Produce Preference Survey

Top 5 produce items requested by the general public Stevens, Ferry, and Pend Oreille Counties

- **Veggies Eaten Raw**
  - Tomatoes
  - Lettuce (all types)
  - Carrots
  - Peas (Sugar Snap)
  - Spinach

- **Veggies Eaten Cooked**
  - Asparagus
  - Broccoli
  - Corn
  - Cauliflower
  - Garlic

- **Fruit and Berries**
  - Blueberries
  - Strawberries
  - Peaches
  - Apples
  - Raspberries
Stevens County Food Pantry
2015 & 2016 Produce Preference Surveys

Top 5 produce items requested as “Favorite they’d like more of” by Food Bank Clients in Stevens County (2015)

Top 5 produce items requested by the General Public Stevens, Ferry, and Pend Oreille Counties (2016)
Regional Food Systems Infrastructure
Nutritional Daily Portion Dollar Value for Top 10 Preferred Produce Items in each Usage Group

Salad Vegetables

Cooking Vegetables

Fruits and Berries
Exercise: Person Daily Portions Eaten
Worksheet 4: Calculate “Nutritious Daily Portions Eaten”

- Use Handout 3: Food Pantry Client Preferences
- Multiply your “Daily Portions” by their corresponding Preference %
Exercise: Person Daily Portions Eaten  
Worksheet 4: Calculate “Nutritious Daily Portions Eaten”

- What’s left is...
- Nutritious Daily Portions Eaten

<table>
<thead>
<tr>
<th>Count</th>
<th>Item</th>
<th>Nutritious Daily Portions</th>
<th>Client Preference Value (from handout)</th>
<th>Nutritious Daily Portions Eaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Example:**
- Celeriac
- 124 Nutritious Daily Portions
- Pref Value = 25%
- 124 Nutritious Daily Portions
  - 25 out of 100 actually eaten (25%)
  - $124 \times 0.25$
  - 31 Nutritious Daily Portions eaten

Price uplift for:
- High Nutrition
- High Preference
Outline

• Farm to Food Pantry Program

• Understanding Value
  • Cash Value
  • Nutritional and Value
  • Food Pantry Client Preferences

• Exercise: Nutritional Daily Portions Eaten

• Data – Based Produce Decision Making

• Contact Info
## Farm to Food Pantry Contract Pricing

### 2017

**Farm to Food Pantry Program**

**Contract Pricelist**

**Updated 5/9/2017**

<table>
<thead>
<tr>
<th>Produce Item</th>
<th>Usage Category</th>
<th>Package Type</th>
<th>Price per Lb</th>
<th>NDP per Lb</th>
<th>Client Pref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apples, Raw, with skin</td>
<td>Fruit and Berries</td>
<td>Loose in Banana Boxes</td>
<td>$0.42</td>
<td>3.59</td>
<td>44%</td>
</tr>
<tr>
<td>2. Apricots, raw</td>
<td>Fruit and Berries</td>
<td>Baskets or Flats</td>
<td>$0.85</td>
<td>6.74</td>
<td>17%</td>
</tr>
<tr>
<td>3. Artichokes (Globe or French) Raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$4.80</td>
<td>2.95</td>
<td>0%</td>
</tr>
<tr>
<td>4. Asparagus, Raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$1.80</td>
<td>3.52</td>
<td>64%</td>
</tr>
<tr>
<td>5. Basil, fresh</td>
<td>Salad Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$5.00</td>
<td>7.69</td>
<td>8%</td>
</tr>
<tr>
<td>6. Beet Greens, Raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$2.00</td>
<td>20.65</td>
<td>4%</td>
</tr>
<tr>
<td>7. Beet, bulk, no tops</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$0.63</td>
<td>0.00</td>
<td>31%</td>
</tr>
<tr>
<td>8. Beet, all colors, with tops</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$1.00</td>
<td>11.62</td>
<td>31%</td>
</tr>
<tr>
<td>9. Beets, Raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$0.88</td>
<td>2.60</td>
<td>31%</td>
</tr>
<tr>
<td>10. Pepper, bell type, green, big</td>
<td>Salad Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$4.00</td>
<td>6.22</td>
<td>28%</td>
</tr>
<tr>
<td>11. Pepper, bell type, green, midsized</td>
<td>Salad Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$3.00</td>
<td>6.22</td>
<td>28%</td>
</tr>
<tr>
<td>12. Blueberries, Raw</td>
<td>Fruit and Berries</td>
<td>Baskets or Flats</td>
<td>$3.00</td>
<td>12.03</td>
<td>45%</td>
</tr>
<tr>
<td>13. Broccoli, Raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$2.40</td>
<td>7.37</td>
<td>77%</td>
</tr>
<tr>
<td>14. Broccoli raab, raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$2.00</td>
<td>15.36</td>
<td>6%</td>
</tr>
<tr>
<td>15. Brussel sprouts, raw</td>
<td>Cooking Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$2.00</td>
<td>17.16</td>
<td>30%</td>
</tr>
<tr>
<td>16. Cabbage, head type, green or red</td>
<td>Salad Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$0.66</td>
<td>6.33</td>
<td>35%</td>
</tr>
<tr>
<td>17. Cabbage, leaf type</td>
<td>Salad Vegetable</td>
<td>Bagged or Loose in Banana Boxes</td>
<td>$0.80</td>
<td>6.33</td>
<td>35%</td>
</tr>
<tr>
<td>18. Melon, Centolima, Raw</td>
<td>Fruit and Berries</td>
<td>Loose in Banana Box</td>
<td>$0.64</td>
<td>10.35</td>
<td>44%</td>
</tr>
</tbody>
</table>

**Price uplift for:**
- High Nutrition
- High Preference
Regional Food Systems Infrastructure
Measuring Performance: Nutritional Serving Value per Dollar

Nutritious Daily Portions per Dollar for Produce Delivered through 2016 N.E.W. Hunger Coalition F2FP Program
(based on NNR Score and USDA MyPlate serving recommendations)
Regional Food Systems Infrastructure
Measuring Performance: Food Pantry Client Preference VS Nutritional Value

Food Pantry Client Preference (%) VS Nutritional Value (NDP) per Dollar

- Orange: Cooking Vegetables
- Green: Salad Vegetables
- Red: Fruit and Berries

- Broccoli
- Carrots
- Strawberries
- Lettuce
- Scallions
- Cantaloupe
- Kale
- Pumpkin
Value of Produce
Nutrition – Natural Nutrient Rich (NNR) Score

- 1 Carrot provides a daily portion of Vitamin A, Calcium, and Potassium
Regional Food Systems Infrastructure
Using Produce Value Data to make Decisions

Increased Supply of Produce (Lower Cost Nutritious Produce)

Client Behavior Change – “Like” more Nutritious Produce

Extended Role: SNAP Ed
Pumpkin: Increase Client Preference

Extended Role: Ag Tech Support
Broccoli: Cut grower cost
Success: High nutrition produce items to move this direction...

Nutritional Daily Portions (NDP) per Dollar

Cooking Vegetable Client Preference (%) VS Nutritional Value (NDP) per Dollar

- Broccoli
- Sweet Corn
- Beets
- Winter Squash
- Pumpkin

Nutritional Client Preference (%)

0.00%
10.00%
20.00%
30.00%
40.00%
50.00%
60.00%
70.00%
80.00%
90.00%

0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
This program connects Farmers... With Vulnerable Families.
Contact Information

• Nils Johnson  
  Stevens County WSU Extension Ag Program Coordinator

  Phone:    (509) 684-2588  
  Mobile/Text:  (509) 680-8659  
  Email:    nils.johnson@wsu.edu

• Stevens Co. Extension Office:  
  986 S. Main, Suite D, Colville WA