ENSP Capstone: Cool Food Pledge

Sustainable Food Symposium

December 6, 2019

Presenters: Maggie Fritz, Rieley Auger, Nick Viggiano
Additional Group Members: Katherine Ryder, Stephen Smith, Kerrin Massaruch, Lillian Wessel, Lilli Pedersen

The University of Maryland has joined THE COOL FOOD PLEDGE and is putting climate-friendly foods on the menu.
Project Goals

- Assist University Dining Services (UDS) in the development of an implementation plan as the first university signatory of the World Resource Institute’s Cool Food Pledge
  - Work with UDS to figure out initial steps to reduce food related greenhouse gases by 25% by the year 2030
  - Analyze steps other universities and food service providers have taken to reduce their carbon emissions and provide recommendations based on successful approaches
  - Create recommendations for a marketing strategy to inform the campus population of Cool Food Pledge and about less carbon intensive diets
  - Create sample survey for student population to gather information about knowledge, attitudes, and behaviors associated with Cool Food Pledge goals
Methods and Recommendations

- Specific university case studies were analyzed and recommendations presented:
  - Low carbon menus
    - Plant forward
  - Behavior changing
    - Preliminary Survey to understand student behavior
    - Word choice
  - Marketing strategies
    - Carbon labels
    - Special Event
Preliminary Survey

- Sustainability awareness
- Current Diet
- Willingness to change

Please rank the following statements from 1 to 5 with 1 being strongly disagrees and 5 strongly agrees.

1) What I eat impacts the global environment.
   Strongly Disagree 1 2 3 4 5

2) I know which foods are sustainable.
   Strongly Disagree 1 2 3 4 5

3) I know where to find sustainable food on campus.
   Strongly Disagree 1 2 3 4 5

4) Sustainable food options are available on campus.
   Strongly Disagree 1 2 3 4 5

5) I consider sustainability when selecting food.
   Strongly Disagree 1 2 3 4 5

11) Red Meat
ever
12) Pork or poultry
never
13) Fish
rarely
14) Dairy products
weekly
15) Eggs

16) Please briefly describe what foods are most important to your diet.

17) Please briefly explain what foods options you feel are lacking.

18) What foods would you like to see added to dining hall menus?
Carbon Labeling

Deep Green
The University of Maryland's commitment to sustainability runs deep.

Deep Green Dishes must be at least three of the six

- Plant Based
- Locally sourced
- In season
- An invasive species
- Sustainably caught
- Fair Trade certified

Looking to shrink your carbon foodprint? Let us help.
University Dining Services wants to make your earth-friendly lifestyle as painless and delicious as possible.

Green thermometer food items:
- Are completely plant based
- Poultry based
- Use sustainably caught fish
- Use locally sourced dairy

Yellow thermometer food items:
- Use non-locally sourced dairy
- Are dairy intensive
- Use Terp Farm beef or lamb

Red thermometer food items:
- Use non-locally sourced beef
- Use non-locally sourced lamb
### WRI Carbon Calculator: Potential CO₂ Reduction Pathway

<table>
<thead>
<tr>
<th>Food type</th>
<th>2017 Baseline</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animal-based foods</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef &amp; buffalo meat</td>
<td>120,862</td>
<td>85,000</td>
<td>68,000</td>
</tr>
<tr>
<td>Lamb/mutton &amp; goat meat</td>
<td>3,762</td>
<td>3,200</td>
<td>2,000</td>
</tr>
<tr>
<td>Pork (pig meat)</td>
<td>65,272</td>
<td>56,000</td>
<td>49,000</td>
</tr>
<tr>
<td>Poultry (chicken, turkey)</td>
<td>361,698</td>
<td>340,000</td>
<td>323,000</td>
</tr>
<tr>
<td><strong>Cheese</strong></td>
<td>158,268</td>
<td>158,268</td>
<td>158,268</td>
</tr>
<tr>
<td><strong>Milk (cow’s milk)</strong></td>
<td>422,108</td>
<td>390,000</td>
<td>375,000</td>
</tr>
<tr>
<td><strong>Eggs</strong></td>
<td>87,649</td>
<td>90,000</td>
<td>95,000</td>
</tr>
<tr>
<td>Fish (finfish)</td>
<td>42,591</td>
<td>58,000</td>
<td>64,000</td>
</tr>
<tr>
<td><strong>Plant-based foods</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legumes (misc.)</td>
<td>60,678</td>
<td>100,000</td>
<td>118,000</td>
</tr>
<tr>
<td>Grains/cereals (except rice)</td>
<td>276,274</td>
<td>320,000</td>
<td>345,000</td>
</tr>
<tr>
<td>Tree nuts and seeds</td>
<td>12,769</td>
<td>14,500</td>
<td>16,000</td>
</tr>
<tr>
<td><strong>Total Food Mass</strong></td>
<td>1,611,931</td>
<td>1,614,968</td>
<td>1,613,268</td>
</tr>
</tbody>
</table>
Potential 25% Reduction Pathway

- Implement the following plant-forward changes to Dining Services’ purchases:
  - Increase:
    - Legumes by 94%
    - Tree nuts and seeds by 25%
    - Grains by 25%
    - Fish by 50%
  - Reduce:
    - Pork by 25%
    - Chicken by 10%
    - Beef and buffalo meat by 44%
    - Lamb, mutton and goat by 47%
- This can be obtained while keeping food mass consistent
- Total reduction of 25.85% in food-related carbon emissions
### Action Plan

- **Cool Food Pledge Task Force**
- **Notice**: long term discussions and overlapping timelines
- **North Campus Diner (or new dining hall) as pilot-site**
- **Self accountability on UDS’ behalf**
- **3 Phases:**
  - Research, Evaluation, & Piloting
    - January 2020-December 2021
  - Primary implementations
    - January 2022-December 2025
  - Campus-wide expansions
    - January 2026-December 2030

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>January 2020</th>
<th>December 2021</th>
<th>Action</th>
<th>Work Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assembly of Cool Food Pledge Task Force</td>
<td>UDS, Green Dining</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>January 2020-December 2021</td>
<td>Surveying students to gauge interest, understanding, and excitement surrounding the Cool Food Pledge and low carbon diets</td>
<td>Student body</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2021</td>
<td>Continuation of the Cool Food Pledge Capstone project</td>
<td>ENSP Seniors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June 2020-December 2021</td>
<td>Analyze and approve Cool Food Pledge implementation ideas and innovations suggested by ENSP Capstone groups</td>
<td>CFP, Task Force, Green Dining</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June 2020-December 2021</td>
<td>Develop new implementation strategies informed by WRI data, Task Force feedback, and recommendations by ENSP Capstone groups</td>
<td>CFP, Task Force, Green Dining</td>
<td></td>
</tr>
<tr>
<td>December 2021</td>
<td>June 2021</td>
<td>Begin discussion on sourcing and specific purchasing changes informed by the Capstone team’s recommendations and further data from WRI</td>
<td>UDS, Green Dining</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>January 2024</th>
<th>December 2024</th>
<th>Action</th>
<th>Work Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pilot menu changes at North Campus Diner</td>
<td>UDS, Green Dining</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>April 2022</td>
<td>Plan and execute Cool Food Pledge special dining event or Earth Day</td>
<td>UDS, Green Dining, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June 2022</td>
<td>Pilot Cool Food Pledge and carbon reduction signage at food retailers across campus</td>
<td>UDS, CFP, Task Force, Green Dining</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2022</td>
<td>Pilot outreach campaign to market Cool Food Pledge around campus</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>October 2022-December 2023</td>
<td>Implement a tier of the color-coding labeling program, as well as other new ideas to implement the Cool Food Pledge, as discussed between June 2020-December 2021</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June 2023-December 2023</td>
<td>Research and pilot shifts to buying low-carbon sources</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June 2023-December 2023</td>
<td>Benchmark KPI and evaluation of color-coding labeling program and other implementation programs</td>
<td>CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>January 2024-December 2024</td>
<td>Begin discussions with franchisees regarding low-carbon menu options and sourcing changes</td>
<td>UDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>January 2024-December 2024</td>
<td>Benchmark KPI and evaluation of color-coding labeling program and other implementation programs</td>
<td>CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2024-December 2025</td>
<td>Pilot new low carbon/low emission food trucks</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2025-December 2026</td>
<td>Pilot successful menu changes across all campus dining halls</td>
<td>UDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2026-December 2027</td>
<td>Continue and permanently implement changes at all campus food retailers</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2027-December 2028</td>
<td>Permanent implementation changes to menus at all campus dining halls</td>
<td>UDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2028-December 2029</td>
<td>Increase presence of Cool Food Pledge/promoting signage across campus and in all dining halls</td>
<td>UDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2029-December 2030</td>
<td>Implement a shift to low-carbon purchasing for all campus food retailers</td>
<td>CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>November 2029-December 2030</td>
<td>Finalize campus marketing plans to continue promotion of the Cool Food Pledge, as informed by communication and assessment data</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April 2030</td>
<td>Implement low-carbon menu changes, informed by ENSP Capstone recommendations and WRI data, to Concessions, Good Toby’s Canteen, and Mulligan’s Grill and Pub at the University of Maryland at College Park</td>
<td>UDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April 2030</td>
<td>Continue monitoring changes in franchise buying and sourcing</td>
<td>CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>October 2030</td>
<td>Roll-out campus-wide low carbon vending machines</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
<tr>
<td></td>
<td>January 2028-December 2030</td>
<td>Conduct audits to ensure successful and long-standing changes to menus and items for sale are in compliance with prescribed parameters at all campus food retailers</td>
<td>UDS, CFP, Task Force</td>
<td></td>
</tr>
</tbody>
</table>
Longevity of the Cool Food Pledge

- The ENSP capstone team hopes to continue the work of the Cool Food Pledge implementation in the following ways:
  - Action based implementation
    - Special Event planning
    - Marketing
    - Surveys
  - Research based implementation
    - WRI data analytics
    - UDS purchasing analytics