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# Opinions of Minnesota School Lunch Professionals About MN Food Products

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**By:**  
AURI and the Stine Group

*This report is the result of AURI's 2017 Agricultural Innovation  
Partnership program*

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## **ACKNOWLEDGEMENTS**

The Agricultural Utilization Research Institute (AURI) provided funding for this project via its Agriculture Innovation Partnership program. AURI gratefully acknowledges the efforts of the Stine Group (SG), which conducted the research and analyzed all received data.

## EXECUTIVE SUMMARY

In August 2017, the Stine Group emailed a survey to 167 Nutrition Services Directors (NSDs) in 120 Minnesota school districts. The goal of the survey was to gauge NSDs levels of understanding and interest in Clean Label products for their programs. Additionally, the survey inquired about their willingness and ability to purchase value-added foods processed in Minnesota.

The survey received 44 responses, which translates into a response rate of 26 percent. The geographic composition of responses was fairly equally spread across urban, suburban and rural communities. Based on this information, and combined with the fact that the NSD population is quite small, AURI feels the results are statistically significant.

The survey discovered, among other things, that respondents were familiar with the concept of Clean Labeling, though the majority did not have a Clean Label Program in their district.

With regard to ingredients of concern, the survey showed the highest level of concern for Artificial Colors. In addition, a slight majority indicated that the ingredient of concern most eliminated by NSDs was Added Sodium.

The third component of the survey investigated interest in, and access to, Minnesota value-added food products. While a majority of respondents said they had no trouble sourcing them, the rest indicated experiencing a variety of barriers. These barriers ranged from price to complicated purchasing rules.

- 93 percent of respondents had heard of Clean Label
- 20 percent already had a Clean Label program in their districts.
- Highest "ingredient of concern" is Artificial Colors
- 51.7 percent of respondents noted Added Sodium as the ingredient most eliminated by NSDs.
- 56 percent said they had no trouble sourcing Minnesota value-added food products.
- Barriers to purchasing MN value-added foods include:
  - Distributor doesn't carry items I want to buy
  - Price
  - Worried about liability if buying direct from farmers
  - Don't know what products are being produced in MN
  - Purchasing rules are too complicated
  - Don't have time to focus on local

## **BACKGROUND**

Idea generation is at the heart of AURI's Agricultural Innovation Partnership (AIP) Program. Opportunities to add value to agricultural products emerge through practical, applied research. AURI encourages partners to work closely with AURI staff to explore potential collaboration areas and to build priority initiatives.

The Agricultural Innovation Partnership (AIP) Program purpose is to support collaborative partnerships, directing research and technology transfer opportunities that add value to Minnesota's agricultural products or improve efficiencies in the processing of Minnesota's agricultural products. AURI will publicly share information generated through the AIP Program to help entrepreneurs, businesses and agricultural processors explore opportunities and technologies

Stine & Associates, a business consultancy based in an Alexandria, Minnesota, first proposed this project via the AIP application process.

## DESCRIPTION OF WORK PERFORMED

The Stine Group, in conjunction with AURI staff, conducted a quantitative survey of 167 Nutrition Service Directors to help Minnesota food entrepreneurs and small businesses better understand how their products can find their way into institutional food settings such as schools.

The Stine Group's reasoning behind the importance of such a survey was that "many food entrepreneurs and small businesses have developed "simple or clean" label food products, which consumers perceive to be healthier or more natural alternatives to traditional ingredients"

## SURVEY RESULTS

With regard to demographics, the typical respondent profile is an NSD from a nonmetro or suburban school district, who oversee 1-5 schools.

When asked if they had heard of the term "Clean Label," more than 90% of respondents indicated in the affirmative that they were familiar with the term. Less than 7% of respondents stated they were unfamiliar with the term. These responses were in line with expectations, considering the increase in consumer interest in clean labeling.

The following question asked respondents who were aware of clean labeling about the source of their knowledge. The two most common sources were the media (36.3%) and the School Nutrition Association (36.3%). This is indicative of consumer sentiments driving awareness via the media and professional associations.

Then, the survey asked NSDs if their school was asked to adopt a clean label program to offer more natural food products. The overwhelming response to this question was no (72.7%), with only one-fourth of responses being in the affirmative. Respondents indicated that the most common groups who asked schools to adopt clean label programs were parents and community groups.

Next, the survey investigated which ingredients of concern NSDs were most interested in removing from their offerings, as well as which ones had already been removed. The top three ingredients of concern NSDs wanted to remove were artificial colors, artificial flavors and artificial preservatives. It's worth noting that the ingredient with the second to least amount of interest for removal was added sugars.

When asked about which ingredients of concern had already been removed from school offerings, the top response was added sodium (51.7%), followed by artificial sweetener (48.2%). The two ingredients with the lowest percentage of removal were added sugar (27.5%) and artificial preservatives (24.1%).

In a follow up question, the survey asked respondents about the removal of a secondary set of ingredients of concern. The top three ingredients, which had already been removed, were Monosodium Glutamate (70.3%), High Fructose Corn Syrup (51.8%) and Partially Hydrogenated Oil (51.8%).

The survey then moved on to questions about barriers to purchasing Minnesota products. More than half of all respondents (54.5%) indicated experiencing no barriers, while 34% indicated they did, in fact, face barriers.

Of those who answered the previous question in the affirmative, nearly 93% indicated the barrier was related to distributors not carrying items the NSD wanted to purchase. The second most common answer (71.4%) was related to price being a barrier to purchasing Minnesota products.

## **RECOMMENDATIONS**

Based on the results of the survey, AURI and the Stine Group propose the following recommendations:

- Break down the perceived barriers by simply connecting NS directors with MN food entrepreneurs. The food entrepreneur approach is relational while the NS directors approach is about “what the students will want to eat”, filtered by cost of product and complex purchasing regulations.
- Creative cost and menu planning for NS leaders to demonstrate how almost any food item can fit into the menu plan.
- Establish a “Clean Label” for the State of Minnesota by 2020. This will increase the quality of food for students while increasing the local MN economy for MN entrepreneurs to sell their wholesome products to schools for students.
- What factors influence what a NS director thinks about when designing menus: qualities/quality/frequency of foods needed transportation/receiving at schools, cost, ease of preparation and shelf life.
- Share what a typical school menu looks like so entrepreneurs can see where and how often their product fits in the menu, etc.



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# Minnesota AURI Grant: Connecting Local Foods and Public Schools

## Progress:

Which type of community is your district is in?

- Nonmetro
- Suburban
- Urban
- Other

How many schools do you oversee?

- 1-5
- 6-10
- 11-18
- 19 or more
- Other

Have you heard the term "Clean Label" in reference to food products?

- Yes
- No

If you have not heard of the term, how interested are you in learning about "Clean Label" foods?

Not Interested	Would like to learn more	Very interested
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



If you have heard the term "Clean Label", where have you heard it?

- Media
- School Nutrition Association
- Other

Has your school been asked to adopt a "Clean Label" program or to offer more natural food products?

- Yes
- No

Continue >



## Minnesota AURI Grant: Connecting Local Foods and Public Schools

### Progress:

If yes, please specify all entities making the request (i.e. School Board, School Administration, Parents, Community, other),

350 characters left.

Continue >



# Minnesota AURI Grant: Connecting Local Foods and Public Schools

## Progress:

Please rank your interest in removing these commonly described "ingredients of concern". **A rank of 10=highest interest and 1=least interest.**

(1 = Least interest)

- Artificial Colors (caramel colors and synthetic dyes)
- Artificial Flavors
- Artificial Preservatives (Benzoates, Benzoic Acid, Sulfites, Butylated Hydroxyanisole, Butylated Hydroxytoluene, Propyl Gallate, Tert-Butylhydroquinone)
- Added Sugar
- Artificial Sweeteners
- Monosodium Glutamate (MSG)
- Flour Conditioners (Azodicarbonamide, Bromated Flours)
- High Fructose Corn Syrup (HFCS)
- Nitrates & Nitrites
- Genetically Modified Organisms (GMOs)

Which of the following ingredients have you eliminated in your program?  
(please check all that apply)

- Artificial colors (caramel colors and synthetic dyes)
- Artificial Flavors
- Artificial Preservatives (Butylated Hydroxyanisole, Butylated Hydroxytoluene, Propyl Gallate, Tert-Butylhydroquinone)
- Artificial Preservatives (Benzoates, Benzoic Acid, Sulfites)
- Added Sodium
- Added Sugar
- Artificial Sweetener

Which of the following ingredients have you eliminated in your program?  
(please check all that apply)

- Monosodium Glutamate (MSG)
- Flour Conditioners (Azodicarbonamide, Bromated Flours)
- High Fructose Corn Syrup (HFCS)
- Nitrates & Nitrites
- Partially Hydrogenated Oil
- Thickening Agent - Carrageenan
- Genetically Modified Organisms (GMO's)
- Other

Have you experienced barriers to purchasing MN value-added products such as MN cheese or items such as hot dogs from MN grown turkeys?

- Yes
- No

Continue >



Agricultural Utilization Research Institute

## Minnesota AURI Grant: Connecting Local Foods and Public Schools

### Progress:

If yes, what are barriers to purchasing Minnesota value-added products (ex. MN cheeses) or further processed (ex. Hot dogs from MN raised turkeys)?  
(please check all that apply)

- Distributor doesn't carry items I want to buy
- Price
- Don't have time to focus on local
- Don't know what products are being produced in MN

- Purchasing rules are too complicated
- Worried about liability if buying direct from farmers
- Other

## APPENDIX B: Survey Responses



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### Constant Contact Survey Results

Survey Name: Stine Group Survey

Response Status: Partial & Completed

Filter: None

9/5/2017 8:38 AM CDT

Which type of community is your district is in?

Answer	0%	100%	Number of Response(s)	Response Ratio
Nonmetro			16	36.3 %
Suburban			14	31.8 %
Urban			8	18.1 %
Other			6	13.6 %
No Response(s)			0	0.0 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

How many schools do you oversee?

Answer	0%	100%	Number of Response(s)	Response Ratio
1-5			24	54.5 %
6-10			13	29.5 %
11-18			5	11.3 %
19 or more			1	2.2 %
Other			1	2.2 %
No Response(s)			0	0.0 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

Have you heard the term "Clean Label" in reference to food products?

Answer	0%	100%	Number of Response(s)	Response Ratio
Yes			40	90.9 %
No			3	6.8 %
No Response(s)			1	2.2 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

If you have not heard of the term, how interested are you in learning about "Clean Label" foods?

1 = Not Interested, 2 = Would like to learn more, 3 = Very interested

	1	2	3	Number of Response(s)	Rating Score <sup>1</sup>
				20	2.2

<sup>1</sup>The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

If you have heard the term "Clean Label", where have you heard it?

Answer	0%	100%	Number of Response(s)	Response Ratio
Media			16	36.3 %
School Nutrition Association			16	36.3 %
Other			9	20.4 %
No Response(s)			3	6.8 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

Has your school been asked to adopt a "Clean Label" program or to offer more natural food products?

Answer	0%	100%	Number of Response(s)	Response Ratio
Yes			11	25.0 %
No			32	72.7 %
No Response(s)			1	2.2 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

If yes, please specify all entities making the request (i.e. School Board, School Administration, Parents, Community, other),

11 Response(s)

Please rank your interest in removing these commonly described "ingredients of concern". A rank of 10=highest interest and 1=least interest.

1 = Least interest

Answer	1	2	3	4	5	6	7	8	9	10	Number of Response(s)	Ranking Score <sup>†</sup>
Artificial Colors (caramel colors and synthetic dyes)											35	7.4
Artificial Flavors											35	6.5
Artificial Preservatives (Benzoates, Benzoic Acid, Sulfites, Butylated Hydroxyanisole, Butylated Hydroxytoluene, Propyl Gallate, Tert-Butylhydroquinone)											35	6.8
Added Sugar											35	4.5
Artificial Sweeteners											35	5.3
Monosodium Glutamate (MSG)											35	5.2
Flour Conditioners (Azodicarbonamide, Bromated Flours)											35	4.2
High Fructose Corn Syrup (HFCS)											35	5.8
Nitrates & Nitrites											35	4.9
Genetically Modified Organisms (GMOs)											35	4.6

<sup>†</sup>The Ranking Score is the weighted average calculated by dividing the sum of all weighted rankings by the number of total responses.

Which of the following ingredients have you eliminated in your program? (please check all that apply)

Answer	0%	100%	Number of Response(s)	Response Ratio
Artificial colors (caramel colors and synthetic dyes)			11	37.9 %
Artificial Flavors			8	27.5 %
Artificial Preservatives (Butylated Hydroxyanisole, Butylated Hydroxytoluene, Propyl Gallate, Tert-Butylhydroquinone)			4	13.7 %
Artificial Preservatives (Benzoates, Benzoic Acid, Sulfites)			7	24.1 %
Added Sodium			15	51.7 %
Added Sugar			8	27.5 %
Artificial Sweetener			14	48.2 %
<b>Totals</b>			<b>29</b>	<b>100%</b>

Which of the following ingredients have you eliminated in your program? (please check all that apply)

Answer	0%	100%	Number of Response(s)	Response Ratio
Monosodium Glutamate (MSG)			19	70.3 %
Flour Conditioners (Azodicarbonamide, Bromated Flours)			5	18.5 %
High Fructose Corn Syrup (HFCS)			14	51.8 %
Nitrates & Nitrites			8	29.6 %
Partially Hydrogenated Oil			14	51.8 %
Thickening Agent - Carrageenan			4	14.8 %
Genetically Modified Organisms (GMO's)			5	18.5 %
Other			1	3.7 %
<b>Totals</b>			<b>27</b>	<b>100%</b>

Have you experienced barriers to purchasing MN value-added products such as MN cheese or items such as hot dogs from MN grown turkeys?

Answer	0%	100%	Number of Response(s)	Response Ratio
Yes			15	34.0 %
No			24	54.5 %
No Response(s)			5	11.3 %
<b>Totals</b>			<b>44</b>	<b>100%</b>

If yes, what are barriers to purchasing Minnesota value-added products (ex. MN cheeses) or further processed (ex. Hot dogs from MN raised turkeys)? (please check all that apply)

Answer	0%	100%	Number of Response(s)	Response Ratio
Distributor doesn't carry items I want to buy			13	92.8 %
Price			10	71.4 %
Don't have time to focus on local			1	7.1 %
Don't know what products are being produced in MN			5	35.7 %
Purchasing rules are too complicated			2	14.2 %
Worried about liability if buying direct from farmers			7	50.0 %
Other			0	0.0 %
<b>Totals</b>			<b>14</b>	<b>100%</b>