John Polanski
Retired - MnTAP
Food Processing Specialist

www.mntap.umn.edu
MnTAP Overview

- Funded by the state (MPCA) since 1984
- Located at the University of Minnesota
- 12 staff, with backgrounds in engineering and science
Legalizing the Feeding of Nonmeat Food Wastes to Livestock

Applied Engineering in Agriculture
Instead of...
Why Not?
Mmmm!
Federal And State Laws Govern The Feeding Of Food Wastes To Pigs
The Federal Law Is Referred To As: The Swine Health Protection Act
The State Laws Are Referred To As: Garbage Feeding Laws
How Did These Laws Come To Be?

- In 1932 Vesicular Exanthema was introduced in California and spread by trains to 42 states because raw food waste, garbage, from the trains was being fed to pigs along the routes.
By The 1950's All States Had Established Garbage Feeding Regulations
In 1980 The Swine Health Protection Act Was Passed By Congress
What is Garbage?
Federal Definition

“All waste material ... from the meat of any animal or other animal material and other refuse ... associated with any such material resulting from the handling, preparation, cooking, or consumption of food ... ”
Federal Definition

“...garbage may not be fed to swine unless it is first treated...”
“The regulations in Sec. 166.7 require that garbage be heated throughout at boiling 212°F for 30 minutes before being fed to swine”
Federally Exempted Material

The requirements shall not apply to rendered products, bakery waste, candy waste, eggs, domestic dairy products, fish from the Atlantic Ocean, or inland waters of US and Canada which do not flow to Pacific Ocean.
Minnesota Definition

“Garbage means animal or vegetable refuse, including all waste material, by-products of a kitchen, restaurant, or slaughter house, and refuse accumulation of animal, fruit, or vegetable matter, liquid or solid…”
State Exempted Material

“Garbage …does not mean vegetable waste or by-products resulting from the manufacture or processing of canned or frozen vegetables”
Gaining the Support of the Enforcing Agency
Barrier

A surveillance system is needed to monitor the feeding of non-meat food by-products.
Solution

Veterinarians in private practice can ensure proper handling and feeding of non-meat food by-products.
Barrier

State employees do not have time to rewrite the Minnesota law.
Solution

A MnTAP staff person will rewrite the statute.
The state of Minnesota adopts the rules and regulations of Title 9 CFR 166.1-166.15 as its official rules and regulations.
However....

If the federal regulations were adopted, Minnesota’s vegetable processors would no longer be exempt.
What Are Others Doing?

WISCONSIN

Law: Feeding garbage is not allowed.

Garbage Definition: “… animal or vegetable wastes containing animal parts ... ”
What Are Others Doing?

GEORGIA

Law: Feeding garbage is not allowed.

Garbage Definition: “… all refuse matter, animal or vegetable … ”
What Are Others Doing?

NEBRASKA

Law: Feeding garbage is not allowed.

Garbage Definition: “… fruits, vegetables, meats … poultry material … ”
Nebraska Exempted Material

“When deemed to be in the best interest of the livestock industry … the department may … exempt specified materials … of a non–meat nature … ”
Contacting the Legislative Assistant
The Legislative Process
New Minnesota Law

Under new Minnesota law, non-meat food waste can now be fed to livestock without having to be treated.

(similar to federal guidelines)
Federal Definition

“All waste material … from the meat of any animal or other animal material and other refuse … associated with any such material resulting from the handling, preparation, cooking, or consumption of food … ”
Federally Exempted Material

The requirements shall not apply to rendered products, bakery waste, candy waste, eggs, domestic dairy products, fish from the Atlantic Ocean, or inland waters of US and Canada which do not flow to Pacific Ocean.
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MN Adopts Nebraska Exemption

“When deemed to be in the best interest of the livestock industry … the department may … exempt specified materials … of a non-meat nature … ”
Rewriting the Rules
8 Step Sample Problem

• Obtain a nutrient analysis
• Obtain a chemical analysis
• Determine availability of product
• Determine the logistical factors
• Choose a nutritionist
• Formulate a ration
• Calculate the feed costs
• Calculate facility modification costs
Tons Of Food Waste Fed To Livestock

• 2006: 166,966
• 2008: 144,127
• 2011: 211,718
• 2012: 169,959
• 2015: 255,197
• 2016: 188,863
## 20 States That Can Use The Nebraska Exemption

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<th>Alabama</th>
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Thank You!

Questions