

Leave No Dairy Calf Behind Educational Series



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IOWA STATE UNIVERSITY
Extension and Outreach

Healthy People. Environments. Economies.



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

**NORTH CENTRAL
RISK MANAGEMENT
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Why calves?

- *Having healthy dairy replacements is critical to a farm's overall profitability and sustainability*
- *2012 Iowa Dairy Survey indicated that 40% of Iowa dairy farms will be making changes to calf facilities in the next 5 years*

RME Grant Goals

- *Assist producers in evaluating their current practices and potentially new calf housing and feeding systems*
- *Enhance management skills to operate these systems successfully*



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- Questions? Type into chat box
- Type Name/Email address into chat box
- Webinar/Resource Materials:
 - <http://www.extension.iastate.edu/dairyteam/calves-heifers>



Calf Raising Facilities

Dan Huyser

Field Specialist – Ag Engineering

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Key Components of Calf Housing

- Adequate space
- Good air quality
- Dry and clean bedding area
- Easy access to feed and water
- Caretaker convenience and comfort

The Gold Standard



The Gold Standard's Drawbacks



Zweberfarms.com

The Gold Standard's Drawbacks



Calftel.com

Calf hutch Costs

Commercial Calf Hutches: \$ 269 and up

Home Built Hutches: \$100 and up





Spantechbuildings.com

Indoor Alternative

Advantages:

- Protection from adverse weather
- Feed and supplies close
- More efficient use of space

Disadvantages:

- Harder to correctly ventilate
- Harder to idle facilities



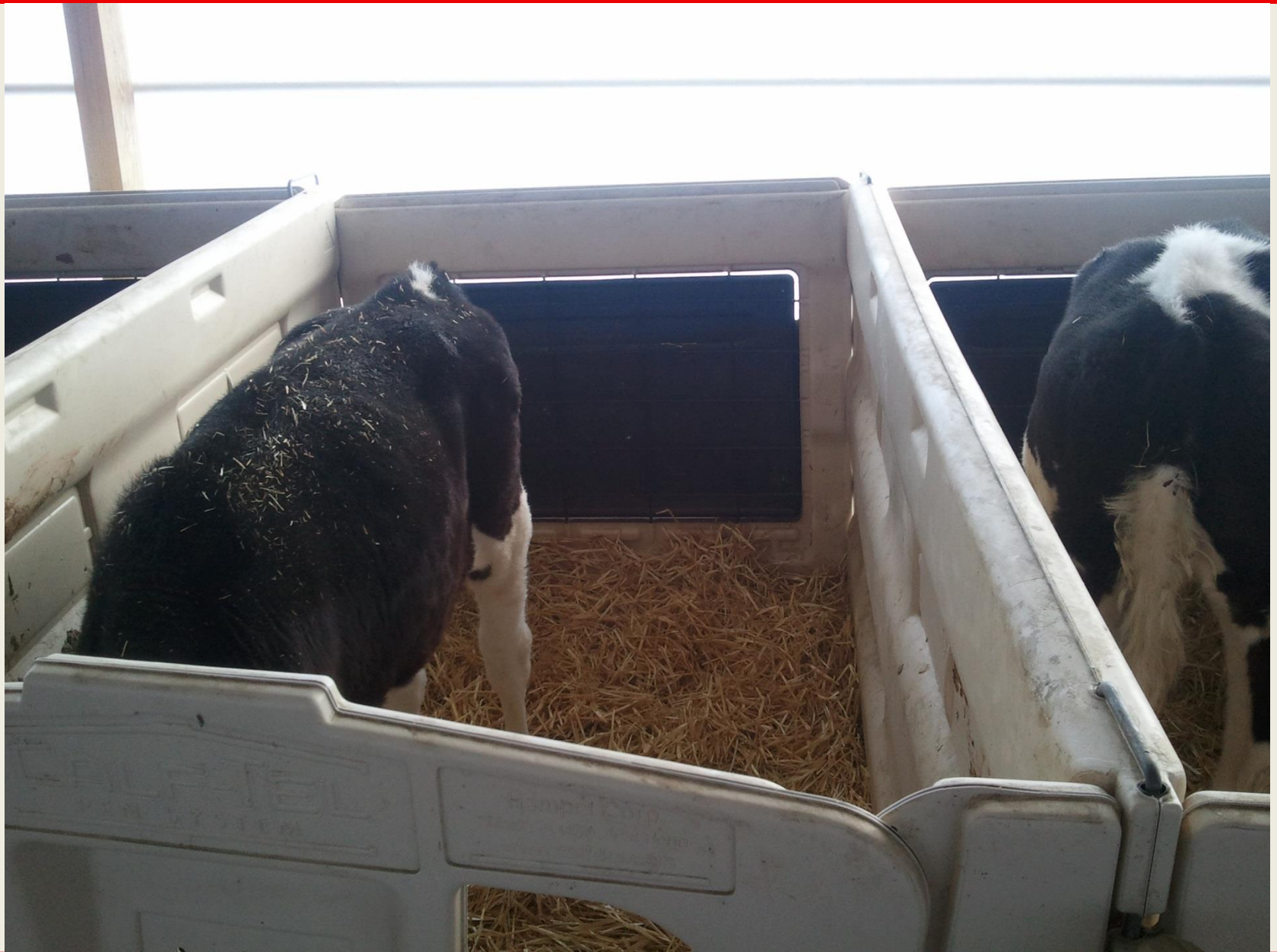
The Ideal Calf Buildings

➤ Individual Pens

- ❖ Solid panels between calves with open fronts and mesh 2 feet and above in back
- ❖ 34 Square feet or more bedded area per calf
- ❖ Deeply bedded pen in cooler temperatures
- ❖ Drainage below the bedding
- ❖ Natural ventilation with positive pressure tube
- ❖ Sized to handle 25% more calves than calving rate









Dairyagendatoday.com



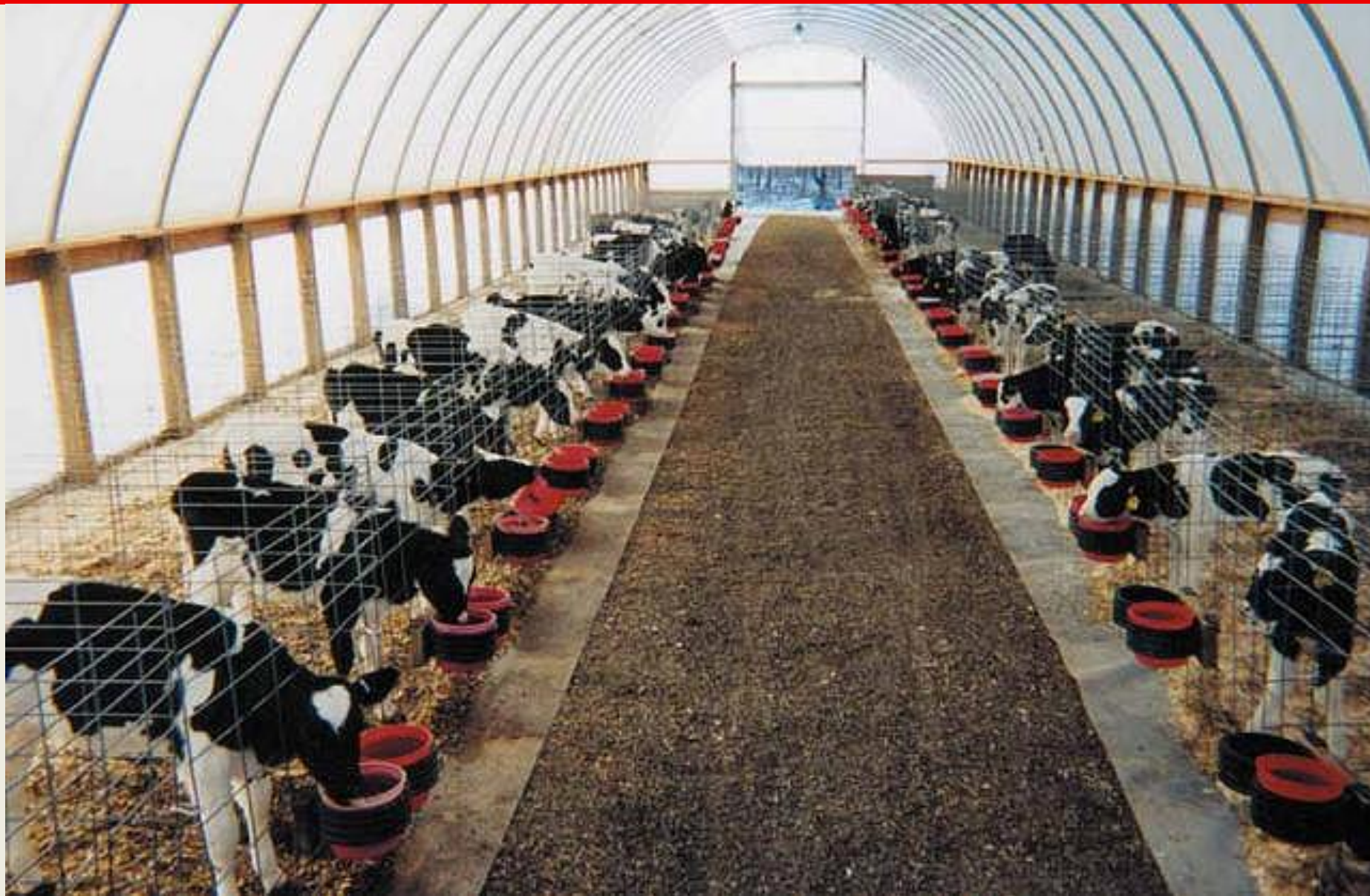
Dairybusiness.com



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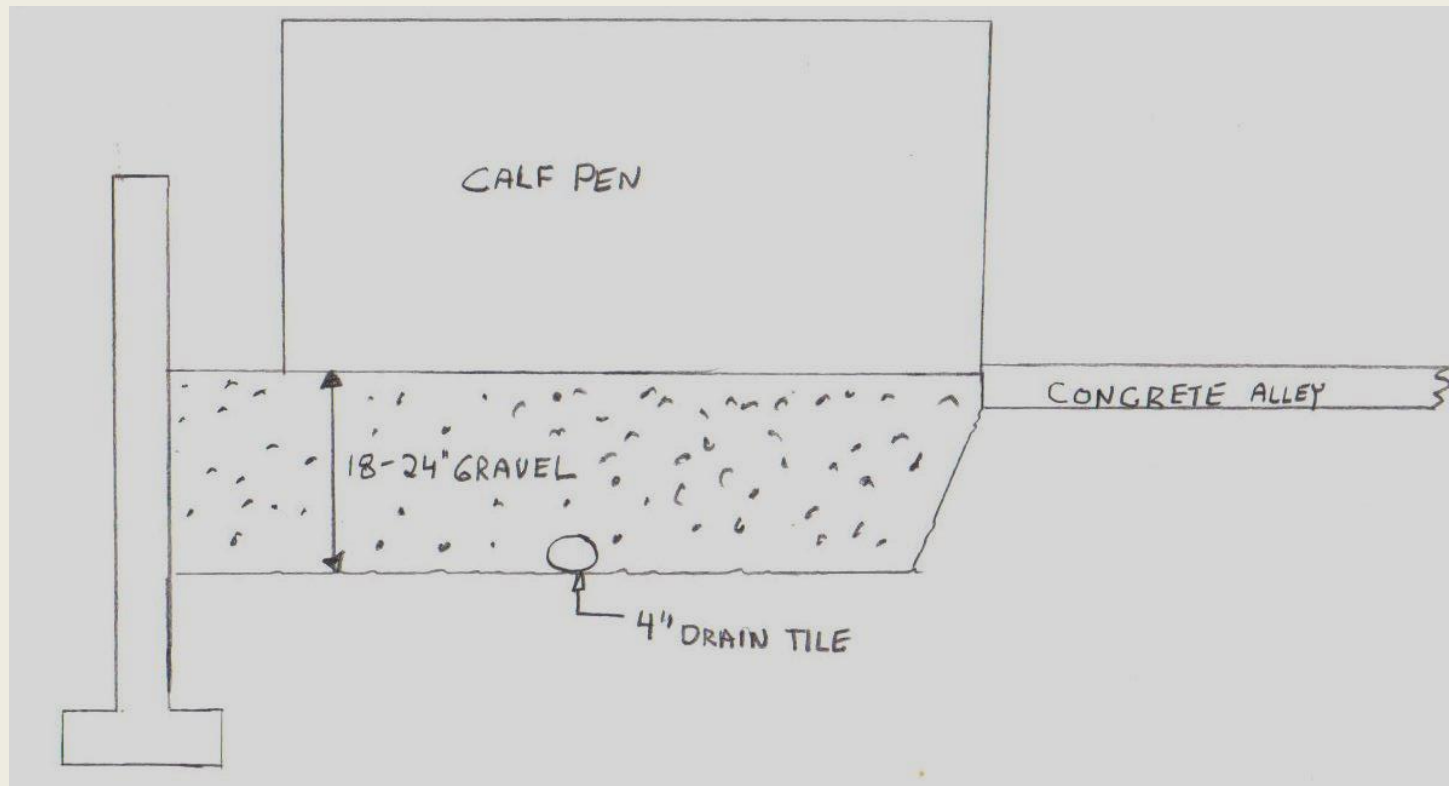


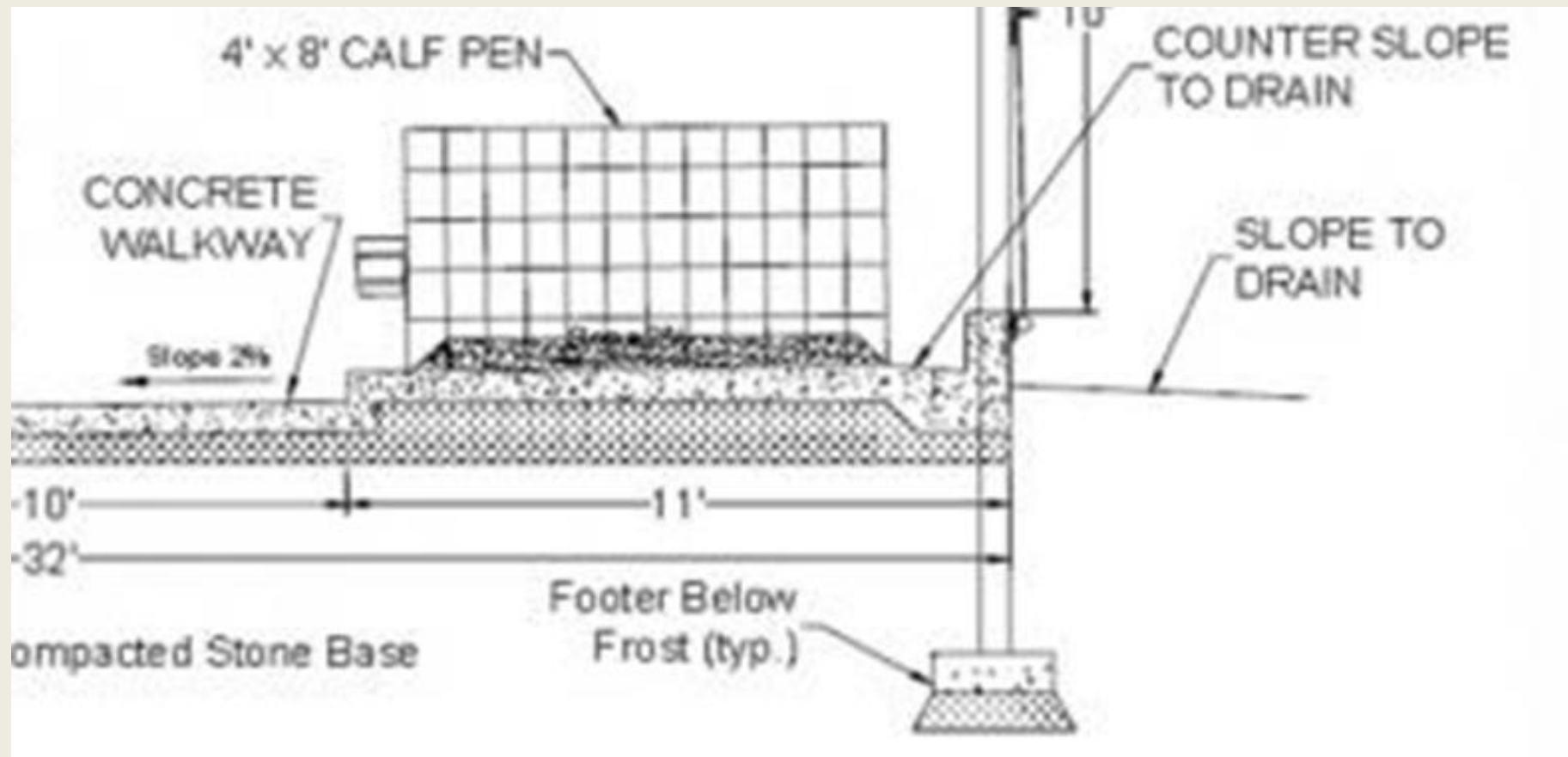




mbbuildings.com

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Indoor Housing

➤ Group Housing

- ❖ 34 Square feet or more bedded area per calf
- ❖ Deeply bedded pen in cooler temperatures
- ❖ Drainage below the bedding
- ❖ Positive pressure tube for minimum ventilation
- ❖ Good Drainage around water tanks and calf feeders









Automatic Calf Feeder Barns

- Group pens
- Feeder room
 - Water
 - Drain
 - Electricity
 - Heat
 - Easy access





Sioux dairy.com















The dairy land initiative

Ventilation

- Fresh air is needed to remove gases, moisture, heat, and reduce airborne bacteria counts
- Three ways
 - Mechanically
 - Naturally
 - Combination of natural and mechanical



Adctubes.com

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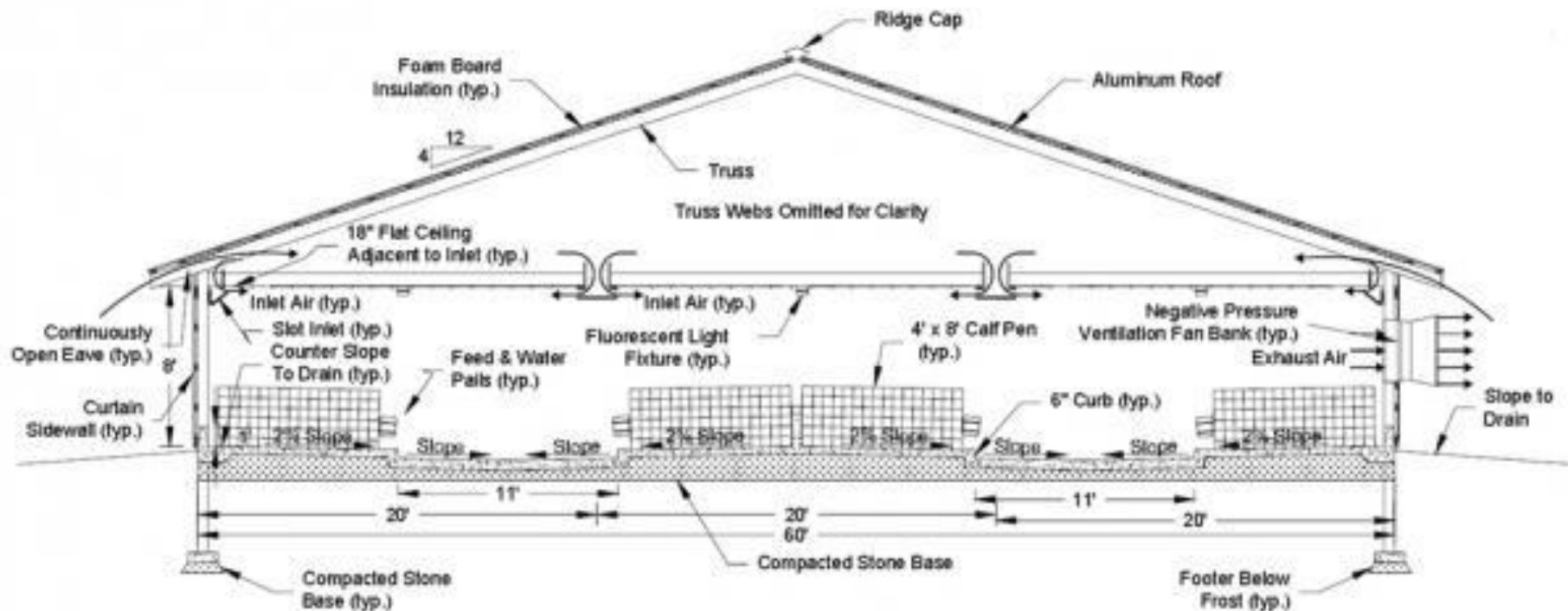


Figure 3. Mechanically ventilated drive through calf barn with four rows of individual pens.

Other Considerations

- Utility/Mixing/Washing Room
- Drains for washing down
- Cleaning access
- Feed/Supply Storage
- Location



Dairycowtails.blogspot.com

Repurposing Buildings

Many Considerations

- Why is it available?
- Condition and needed repairs
- Degree of concrete removal and replacement
- Time to remove unneeded equipment
- Electrical Service
- Water
- Structural compromises

Structural Considerations



Ventilation Considerations

- Mechanical versus Natural
 - Is natural ventilation possible?
- Ease of “making it work”
- Poor ventilation can do irreparable damage to calves

Commonly Repurposed in Iowa



Reavesbuildings.com

Ventilation Considerations



Many Convenience Considerations

- Convenience
 - Feeding
 - Cleaning
 - Bedding
 - Loading/unloading cattle



midlifebyfarmlight.blogspot.com



Hoop Buildings \$8-9.00 /ft²

Akfabricsystems.com



Curtain Sided Building: \$10-12.00 /ft²

Truthordairy.blogspot.com



Mechanically Ventilated Facility
with ceiling \$12-14.00 /ft²

Dairystar.com

Other Useful Costs

- Labor to build: \$2-4.00 /ft²
- Concrete:\$200.00 labor and materials
- Cost per calf space:\$1200-1500 is common

Summary

- Many different types of calf facilities.
 - Two most important factors
 - Dry bedding area
 - Proper ventilation where the calf is, not the human!
- When repurposing buildings, make sure calf conditions aren't compromised



For Calf Facility Information

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The End! Questions?