



Challenge Card

Station 1 – Chippewa Valley Angus: Herd Management & Genetics

Role Brief:

You are the **herd manager** at **Chippewa Valley Angus**, a purebred Angus operation known for producing high-quality seedstock.

You are planning your breeding decisions for the upcoming calving season. The bull you choose will impact your herd's genetics, calf health, and profitability for years to come.

Farm Goals:

Before breeding season begins, the farm owner meets with you to outline their priorities:

- They want to keep **calving problems low** so they don't lose calves or require extra labor during births.
- They want to improve **growth rates** so calves reach market weight faster.
- They still want to maintain **good marbling** for premium beef quality, but only if it fits the budget.
- They can only afford to use **one bull** for this year's breeding season on 20 cows.

Your job is to select the bull that best fits these goals and justify your decision.



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Station 2 – Granville Milling: Animal Nutrition & Sales

Role Brief:

You are a feed sales representative for Granville Milling, a company that sells livestock feed to beef farmers across Ohio. Your job is to help a local farmer choose the best feed plan for their 10 market steers (beef cattle being raised for harvest).

You want to help the farmer reach their goals, while also keeping their feed costs affordable — and making a good sale for your company.

Background Info:

Mr. Roberts, a local beef farmer, raises steers to sell at the county fair and later for beef. He wants to grow them quickly over the next 30 days but doesn't want to overspend on feed.

His goals are:

- Grow the steers efficiently to reach a healthy sale weight.
- Keep feed costs reasonable — he can't go over \$5,000 total for the month.
- Use a feed plan that's easy to manage (not too complicated to mix or measure).

Your challenge: design a feeding plan that meets his goals and explain why it's the best choice.



Tools to Help:

Bull	Calving Ease (1–10, higher = easier)	Growth Rate	Marbling (Beef Quality)	Cost per Breeding	Notes
Bull A	9	Medium	Medium	\$40	Very easy calving, fewer problems at birth
Bull B	5	High	High	\$60	Produces fast-growing, high-quality calves but may cause difficult births
Bull C	7	Low	Medium	\$30	Low cost and safe, but calves grow slower

Your Challenge:

1. Review the bulls and **choose the one** that best fits the Chippewa Valley Angus herd goals.
 - Recall their farm goals
2. Calculate your **total breeding cost**.
 - 20 cows × cost per breeding
3. Write a **short herd management plan** (2–3 sentences) explaining your reasoning:
 - Why you chose that bull
 - How it fits the herd’s goals (calving ease, growth, and beef quality)
4. Give your plan a **“marketing-style name”** that you could use if selling calves from this breeding (e.g., *“Balance Builder Calf Plan”* or *“Fast-Growth Angus Strategy”*).

Tools to Help:

Feed Type	Cost per 50 lb Bag	Daily Feed per Animal	Average Daily Weight Gain	Notes
Basic Feed	\$15	10 lb	2 lb	Least expensive, reliable option
Premium Feed	\$25	8 lb	3 lb	Most expensive, fastest growth
Custom Mix	\$20	9 lb	2.5 lb	Balanced option, moderate cost

Your Challenge:

1. **Choose a Feed Plan**
You can pick one feed type or create a mix (for example, 50% Basic + 50% Premium).
2. **Do the Math**
Use the information above to calculate:
 - How many pounds of feed your 10 steers will eat in 30 days.
 - How many bags of feed you’ll need (1 bag = 50 lb).
 - Total Feed Cost = (Bags Needed × Cost per Bag).
 - Total Weight Gain = (10 steers × daily gain × 30 days).
3. **Make a Recommendation**
Write a short summary (2–3 sentences):
 - Which feed (or mix) you chose
 - Why it fits the farmer’s goals
 - Whether you stayed under the \$5,000 budget



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Station 3 – AgriFinancial: Ag Lending & Business Support

Role Brief:

You are a **loan officer** at **AgriFinancial**, a bank that specializes in agricultural lending. A local beef farmer, Mr. Jensen, wants to expand his operation and has come to you for advice on financing. Your job is to recommend a loan that meets his needs while ensuring the bank's risk is manageable.

Farmer Background & Goals:

Mr. Jensen wants to:

- Build a **new barn** for his growing herd.
- Purchase **new equipment** to make his farm more efficient.
- Keep **monthly payments manageable** so he can continue day-to-day operations.
- Complete the project within a **reasonable timeframe**, but he's willing to pay a little more interest if it keeps payments affordable.

Your goal is to **help the farmer succeed without exposing the bank to unnecessary risk.**



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Station 4 – Winner's Meats: Meat Processing & Entrepreneurship

Role Brief:

You are the owner of **Winner's Meats**, a local, family-run meat processor. Your business turns beef carcasses into cuts of meat sold directly to restaurants, grocery stores, and local families. You decide which products to make and how to sell them to meet customer demand and earn a profit.

Your goal: **Make smart product choices that keep customers happy and your business profitable.**

Background Info:

You just received one **1,200 lb beef carcass** from a local farmer. After trimming, bones, and waste, you'll have **720 lbs of sellable meat** to package and sell to your customers.

You can make four different types of products, but each one requires a **different amount of raw beef per package** and earns a **different profit**. You also need to think about customer demand — what do people want to buy?



Tools to Help:

Option	Loan Length	Interest Rate	Monthly Payment	Risk Level	Notes
Option A	5 years	6%	\$1,933	Low	Paid off quickly, but higher monthly payment
Option B	10 years	8%	\$1,213	Medium	Moderate monthly payment and total interest
Option C	15 years	10%	\$1,075	High	Lowest monthly payment, most total interest

Your Challenge:

1. Choose the Best Loan Option

- Select one option that meets the farmer's goals while balancing risk for the bank.

2. Explain Your Recommendation

- Write a short **advice message** to Mr. Jensen (2–3 sentences) that:
 - Which improvement you recommend
 - Why it best fits Three Oaks Angus Farm's goals
 - One-sentence explanation you'd tell the farmer to convince them

Tools to Help:

Product	Weight per package	Profit per package	Customer Demand	Notes
Ground Beef	1 lb	\$2	High	Everyday family item; always sells quickly
Steaks	1 lb	\$6	Medium	Restaurant favorite, good profit margin
Roasts	3 lbs	\$15	Low	Larger, family-size item; slower seller
Jerky	0.5 lb	\$4	Medium	Snack item, high price per pound but time-intensive

Reminder: You have **720 lbs** total of meat to divide among these four products.

Your Challenge:

1. Choose how to use your 720 lbs of beef.
 - Decide how many packages of each product to make.
 - Multiply the number of packages \times weight per package to make sure your total equals 720 lbs.
2. Calculate your total profit.
 - Multiply packages \times profit per package for each product.
 - Add all profits together for your total.
3. Marketing Message:
 - Write one short slogan or social media caption you could use to promote your products.
 - Example: "Locally raised. Expertly crafted. From our family to your table."



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Station 5 – Certified Angus Beef: Sustainability & Research

Role Brief:

You are a member of the **Certified Angus Beef (CAB) Sustainability Research Team**. Your job is to help beef producers find the best ways to raise cattle that are **profitable, high-quality, and environmentally responsible**.

Background Info:

You're visiting **Three Oaks Angus Farm**, a family-owned ranch with **100 head of cattle**. They want to take one big step toward sustainability this year, but can only afford to invest in **one project**. Before you make your recommendation, learn what matters most to them.

Farmer Goals:

- They want to reduce their farm's **environmental footprint** so they can market their beef as "sustainably raised."
- They want to **protect their land and water** for the next generation of their family.
- They need a project that will start **showing benefits within one year** — they don't have money for long-term payoffs that take years to see.



Teachers:

Print the cards front-and-back, then cut along the dotted lines.

Tools to Help:

Improvement Option	Cost to Implement	Environmental Impact	Beef Quality Impact	Payoff Speed	Notes
Manure Recycling System	\$1,500	Reuses waste as fertilizer, reduces runoff	No change	Medium-term	Keeps local waterways cleaner and improves soil
Solar-Powered Water Pumps	\$2,000	Reduces energy use and carbon emissions	Slight improvement	Long-term	Great for marketing, but takes time to pay off
Improved Grazing Plan	\$1,000	Prevents overgrazing, improves soil health	Improves marbling	Short-term	Quick benefits for land and cattle, lower cost

Your Challenge:

1. Choose one improvement to recommend and answer:
 - Which improvement you recommend
 - Why it best fits Three Oaks Angus Farm's goals
 - One-sentence explanation you'd tell the farmer to convince them

Example: "We recommend the Improved Grazing Plan — it protects soil and water right away and gives quick results the family can see this year."
