BARNS!! … are they worth it?

Putting in a barn is a big decision, it's a big building, a big project, with a big price tag.

It needs to be thoroughly discussed by everyone on the farm.

The Big-Az Mootel: The Process from Dream to Reality

Step 1. Why do I need a barn?

What do I hope to gain from having one?

- Write down your reasons for – and those against.

Why build a barn?

Reasons For…

- Warm dry shelter for herd to stand or lie comfortably in adverse weather
- Dry place to feed herd in adverse weather
- Reduce pasture damage and pugging
- Reduce feed-wastage in wet weather
- Reduce human stress: no stressful decisions on whether or not to stand cows off, where to stand them, no having to return home just to stand cows off, no late-night decisions that we should move the cows off.
- Eliminate need for sacrifice paddocks, or standing herd on concrete yard or raceways.
- Cool house with shade in hot weather
- Reduce heat stress and accompanying lost production in hot weather
- Reduce pasture pulling in hot dry weather
- AND everything on our farm from the dog to unwanted belongings had a shed – EXCEPT for our major income-earning asset.
- Opportunity for reducing environmental impact

Reasons Against …

- Continuity of farming practice
- Cost
- Apathy

Step 2. What other options are there?

Is a barn the best option for you to achieve those aims?

- Do some 'homework' and research, read articles, ask people.

Alternative Considerations

- Used tools and resources such as DairyNZ publications on identifying our needs, questioned the pros and cons of stand-off areas, covered feed pads, the progression from sacrifice paddock to permanent structure, and read the case studies provided.
- Spoke with other farmers who had built barns
- Took into consideration that everyone we spoke to or heard about was glad they had a full barn, some were putting in a second barn.
- Nobody we spoke to ever said they wished they hadn't built their barn
- Farmers with stand-off pads seemed to cover them as soon as they could afford to.
- Farmers with feed pads seemed to cover them at a later date, too.
- Uncovered stand-off and feed pads still leave your herd standing in the rain, and have sizeable effluent and run-off issues
- Pointless to waste time and money on gradual progression from sacrifice paddocks and wrecked races to stand-off pad, feed pad, covered feed pad … just go straight to where you want to be – which is:
- A permanent structure, to accommodate the whole herd in both adverse and hot weather with on-site feeding facilities.

Step 3. Go and look at some barns

- Ask the barn-owner why they chose their barn-builder, and if there's anything they would do differently …

You can gain valuable insights which can save you both time and money by asking others about their experiences.

Step 4. Design your barn.

- Make a Wish List! Write it down.

Where is your barn site? Check your local and regional council laws for placement, as well as QCONZ and your milk-supply company's rules on building proximity.

How big will your barn be? Following industry guide-lines for area recommended per cow to a) lie down, loaf and socialise and b) feed, we allowed a) 7sq.m / head and b) .8 lineal metres / head

What will your barn look like?

What materials will it be built of?

What effluent management system will be necessary. Check regional council requirements.

What do you want in your barn?

Plan ahead thinking long-term and keep your options open to allow for items you may install in the future as budgets allow.

What bedding material? – permanent, or sustainable-replaceable. Consider all options and on-going costs. Consider maintenance and disposal. How will you get the bedding inside the barn? How will you get it out …

Plan for best cow-flow:- placement of gates, access ways, feeding lanes, troughs or bins.

Water troughs – quantity, volume and placement. Protect troughs to ensure cows can't get pushed into them and remain cast or drown. Protect water supply lines and connections from damage by cows or equipment. Place troughs so the boss cows can't block-off herd-flow.

What equipment or machinery will you need to drive through and around the barn? For maintenance, cleaning, feeding, possibly removing down-cows? Design for easy access.

Is a clear-span design the better option for your Wish List.

How will you feed your cows?

Design your 'food bar' so that cows can't get injured when pushed, can't fall in and remain cast, and can't toss or spread their food.

What materials will be used for feed bins? Needs to be non-toxic, and not cause damage to their teeth or tongues.

Step 5. Choose a barn builder.

- Show them your Wish List
- Ask for obligation-free discussion and quote.
- Ask them for suggestions and recommendations – they have the opportunity to see barns every day, and have valuable insights and experience that could really help you.

Barns and Sheds: Options that we considered

Aztech
CoreSteel
RoundHouse (UK)
Herd Homes
Redpath
Total Span
Wide Span
Kiwi Span
Agri-Pro
Cow House
Simple Shelters
Oct-a-lock by Fabish and Jackson
Stewart and Cavalier
Reporoa Engineering
REL Group (Rakaia Engineering)
Westgate Steel Buildings

This became overwhelming, so **The Winter Barn Proposal** was made as a process of elimination and our own guide for our own requirements. It was also something we could show barn-builders and leave with them to refer back to.

Neighbouring farmers Peter and Raewyn Marwood were putting in an Aztech barn, and after a few visits to see their barn and the construction process … the choice was made.

Step 6. Build it – Use it

Why Aztech?

The main points:

- permanent structure
- permanent roof
- open plan and clear span
- low-maintenance
- bird resistant construction style
- design and building materials (wooden poles and beams rather than entirely steel)
- cost
- efficiency and tenacity of sales contact – they had our design drawn up and quoted before others had even responded to our enquiries
- and we liked the neighbour's shed!

What we've learned:

1) no-one knows enough about barns
2) finding information, advice and experienced knowledgeable answers was not easy
3) no-one has yet got the perfect flooring/bedding
4) no-one knows enough about barn effluent management and disposal of same
5) **cows love barns for all reasons in all seasons**
6) there are big opportunities for significant production increases
7) there are big opportunities to tailor your own custom feeding system
8) seriously valuable reduction in feed and supplement wastage
9) custom blending your own feed means you are sure of what your cows are eating. Most feed suppliers will not disclose their 'ingredients list', and may not always include that extra calcium or magnesium when they say they do! Eliminate the risk when you mix you own.
10) happy heathy cows have higher Body Condition Scores, which flows on to higher production, higher fertility, higher in-calf percentages, shorter calving season … which means more cows milking sooner next season.

5, 6, 7, 8, 9 and 10, are all either money-making or money saving.

What we don't like:

- fairly labour intensive
- aerating bedding, scraping concrete and replacing soiled bedding
- flies – and lack of available controls, no information or advice available for this serious pest
- cost – which is high but not unreasonable, made painful by serious drop in income!

What would we change?

Only the bedding material if the perfect alternative is found!
Please note :- this is not related to the bedding supplier – it is an industry issue.

What would we add?

Concrete the outer perimeter feed lane to better support the weight of loaded mixer wagon. .

So!! … Barns … are they worth it?

Cost or investment? Have we achieved what we set out to do?

- ✓ Reduce herd and human stress in Adverse Weather - yes
- ✓ Reduce winter pasture damage - yes
- ✓ Reduce pugging - yes
- ✓ Eliminate sacrifice paddocks - yes
- ✓ Eliminate sacrifice raceways - yes
- ✓ Reduce raceway repair and maintenance - yes
- ✓ Reduce heat stress - yes
- ✓ Allow faster pasture recovery in all seasons - yes
- ✓ Eliminate feed wastage - yes
- ✓ Reduce feed expenses - yes

Are there real financial gains or just warm fuzzies?

All of the above are either money-making or money-saving.

Less damage + faster recovery = more available grass for either grazing or supplements

The immediate non-wastage of feed was exciting. $s Saving.
The cows were clearly satisfied, leaving their breaks with grass cover. $s Saving.
So the 'round' was extended. $s Saving.

Now The Big-Az Mootel was up and running, and showing great potential.
It is a MANAGEMENT TOOL. and is used as such.
Greater savings could be seen, so the decision was made to take advantage of our opportunity to custom-blend feed and feed what we wanted, when we wanted, utilising our own supplements to greater effect and sourcing off-farm feed at better pricing. $s Saving.

Potential is only worth having if it's activated, so we purchased a BVL Mixer Wagon from Webbline, and have just completed the installation of a feed-bunker complex by Archway.

Further financial gains, despite being the third consecutive year of dry-summer we have:-

- 25% increased production
- Improved and maintained Body Condition
- Improved in-calf rate and Concentrated calving for next season
- significantly reduced our feed costs
- the ability to tailor our feed blend to suit seasonal nutrition recommendations
- more grass in more paddocks

How long until it pays for itself?

If we had a less volatile income, with the benefits we've seen already – not long.
It's cheaper than buying a run-off.
Better than sending your herd off somewhere for winter grazing.

Cost or investment? Are they worth it? You decide!