

## **AAAC – Grain Logistics**

### **ON-FARM STORAGE**

**The challenge is to keep costs down by sharing grain storage between the current system (CBH) and on-farm storage.**

**Nett returns to growers can be increased by building on-farm storage which also adds value to grower's farms.**

**“What is the least cost pathway from the paddock to the port?” Good grain logistics at harvest time, moving grain away efficiently with least capital employed is important and increases returns.**

**In the 40 years that I've been involved in agriculture, from being involved in a property on the south coast, studying agriculture, when there was over 12,000 farmers, many developing new land with 14-18 disc ploughs, harvesting crops with 14ft headers and sheep and cattle were almost the dominant enterprise. CBH had over 300 bins, a Rolls Royce system in a totally regulated marketing system.**

**How things have changed! Today there are now less than 5,000 farmers operating up to 50ft headers, 40-75ft air seeders, CBH is down to 197 bins and going down, the rail system of 2800km is gradually being closed and grain marketing, of course, is deregulated.**

**The challenge is to manage the change and adapt accordingly. Consider the take up of minimum till, GPS Guidance systems and computer technology.**

**The cost price squeeze is never relenting and the on-farm challenges of harvest from stalk to port is immense with larger headers, larger trucks, greater problems in the CBH system due to bin and rail line**

closures and rationalisations and road freight restrictions means that it is time for a rethink.

It was back in the early 80's I was involved with the McColl Royal Commission into Grain Storage and Handling which flagged that on-farm storage was a possibility and there needed to be competition in storage, handling and freight, however it never got up. Why did the regulated monopolies of the AWB and Grainpool never encourage storage competition?

On-farm storage has always been part of the scene, anything from seed grain, grain for the local feed industry, which is under 1m tonne but still a significant part of the market in Western Australia and grain for containers became big issue in 2007 but less in recent times due to changes in bulk ocean freight rates.

It is a time of opportunity to share the capital cost of storage and assist farmer's harvest logistics.

### **Advantages of On-Farm Storage** (Powerpoint)

There are savings to farmers with improved logistics at harvest time by having some on-farm storage for the following reasons:

- a) It allows grain to be stored on farm when either trucking is not available or CBH is busy and the wait time is substantial and costly.
- b) Off type grain can be put aside and either blended and/or stored as a special grade for sale to domestic market or export.
- c) The local market opportunities have always been there in various forms and if one looks at lupin pricing over a long period of time, the cash prices have been significantly better than pool prices, on my reconciliation, up to \$20/t. The local market, as I

understand it, would like all its grain in on-farm storage to give more flexibility of deliveries and save costs.

- d) The container trade, which is grain delivered to a container packing centre, not through the CBH system, is a more efficient system saving anything up to \$15/t currently, in 07/08 it was \$22/t according to EWC.
- e) On-farm storage is freight advantageous in that there is a significant number of growers now carting against the freight i.e. what I call negative freight or arbitrage where the grain is being freighted to bins, not the local bin any more as either this is closed or only takes certain segregations. There may be additional costs of freight of up to \$10/t over and above the standard freight from CBH bin to port.
- f) The further advantages of farm storage is marketing, not only to the local market, but to export market where multiple buyers are requiring specific grades. It could be argued that by storing, for instance ASW wheat due to a problem with protein, by holding for a special market, you are able to achieve a price higher than the harvest bids or pool estimates. Therefore there may be premiums of price by storing on farm and giving the grower more control over his grain.

### **Disadvantages of On Farm Storage** (Powerpoint)

There are obviously disadvantages of on-farm storage – grain insects, sampling quality, general QA and the capital cost.

#### **Insects**

Phosphine resistance is a real issue that needs careful monitoring and control and unfortunately farmer on-farm storage is often the source. The issue that is constantly thrown up is that on-farm storage breeds more weevils and there are quality issues. This is certainly real and I certainly do not underestimate these problems. Good sealed, aerated silos with an ability to fumigate if necessary, should enable insects to

be kept under control. Nevertheless if the grain is to go through CBH, why can't there be a service provided by CBH to assist growers with sampling and insect control, surely this is manageable?

### **General QA**

With modern QA technology for sampling i.e. protein testers, etc, and the ability to sample every load going into the silo, QA is surely manageable.

### **Capital Cost**

There is a substantial capital cost for on-farm storage, this ranges from over \$100/t up to \$200/t + depending on silo type and configuration.

This is not the open bulkhead type facilities that CBH build, which I understand cost \$70-80/t, and surely has high running costs of tarping, loading and unloading cost, greater than an efficient large on-farm silo.

On-farm storage will not be for all growers. For a grower at Mingenew (FR \$10.46/t) within 20 kms of the bin, delivery to that installation, which is a major strategic site, is certainly the best alternative.

Similarly Esperance where road transport to Esperance or Munglinup (FR \$9.46/t) is certainly a very efficient and relatively cheap way to go to market that has little local market and relies virtually totally on export grain. Although Esperance has its own unique requirements for on-farm storage requirements being grain management at harvest with off type grain requiring blending and holding moist grain for drying or blending.

At Geraldton, surely storing lupins on-farm in good large sealed silos or shed and delivering direct to port is better than delivery at harvest into the Deepdale Rd bulkhead and then being outloaded to port? What is the additional handling costs, at least \$10/t?

## **Farm Logistics**

What about on farm logistics and trucking? The move is to larger trucks at great expense – rigs now costing anything from \$300-\$500,000 for use a few months of the year, doesn't seem particularly sensible. I'd suggest to you there is a substantial saving to farmers by not going to these larger rigs, using on-farm storage and a modest truck for delivery into the farm silo and local bin and allowing contractors to cart the greater distances direct to port and strategic bins.

CBH currently has some 19m tonnes full capacity of storage which is greater than the record harvest of a few years of 16m tonne. But what about a big year? There has been projections done of a 20-25m tonne harvest. How is this going to be handled? Can CBH afford to build more and more storage? I'd suggest that in some ways, it's overbuilt and over serviced now. After all, grain is only a bulk commodity worth between \$150-\$600/t, we can't afford a Rolls Royce system in the modern competitive deregulated market for the bulk commodity of grain.

## **Costs**

Let's look at some costings and savings and so added return to growers which can be substantial and I'm sure you all can put your own figures in here.

### **On-Farm Storage vs CBH Silos Cost? (Powerpoint)**

The difference in invest per tonne differs with silo size i.e. the bigger the silo, the less capital cost per tonne.

In looking at the simplified example at Calingiri, 1.5 hours from Kwinana port, the CBH charges and freight and farm to CBH silo, is \$54,300 for 1000t of APW wheat (\$54.31/t). (Powerpoint). The majority of charges are paid out of cash flow at harvest.

On the other hand, 1000t of farm storage you've had built worth approximately \$130,000 and will last at least 30 years is \$35,700 or \$35.70/t. (Powerpoint).

Assuming one still delivered into the CBH system at port i.e. Metro or Kwinana outside harvest, the following costs are likely to apply. Adding a couple of credits i.e. you had couple hundred tonnes of ASW that you are able to blend up to the APW grade in the big silo and there is a storage premium, whether this is a rebate from CBH or a market premium, there's a range of options and the capital cost of the silo is paid over 30 years. You can see from this example, there is a saving to the grower or a 14.3% return on his silo. (Powerpoint).

One can do better than this if you take the advantage of a more flexible harvest, speak to anyone with silo or shed space at harvest. There are cost savings and less stress to the harvest operation – not to be underestimated and certainly gives the ability to increase returns, make better decisions i.e. capture a good price during harvest or blend that load that you just can't get through the local bin at APW or H2.

In looking forward, it is obvious that there is a number of grain buyers in the market now, with buyers contracting grain both from within the CBH system and from on-farm and looking to perhaps load ships directly or using the CBH port facilities to do so. Therefore storing grain on farm will give more marketing options and presumably advantages to those that choose to do so.

I'd suggest that in the Kwinana zone there needs to be a port delivery point, as Metro Grain Centre has not fulfilled its original aim and has become more a local market delivery point. Kwinana perhaps should be delivery centre direct from farm to port which is the most efficient way to deliver a bulk commodity. The more time one handles grain, the more costly it is i.e. the container trade clearly illustrated this where

farm to container terminal was much more cost effective to growers and returned more to them as shown by the Export Wheat Commission 2007/08.

### **CBH Bin Cost**

The idea that CBH may be able to build bins cheaper than on-farm storage is questionable. CBH storage probably ranges from the open bulkhead system as mentioned at approximately \$70-\$80/t up to the bigger bins up to \$200/t. I certainly remember the ports costing much more than this but obviously there are ship loading facilities, etc that need to be taken out of the cost but looking at some of the silos at port, one shudders at the cost of these i.e. Geraldton.

Assuming on-farm capital costs are similar or cheaper, on-farm running costs will be cheaper and surely it's better to share the cost and save the capital component of your CBH charges? By doing this, it means you don't have to continually either raise charges to build or replace CBH silos. This will be a substantial saving to the CBH system and so grower charges.

On-farm storage running costs will be cheaper as labour and machinery (loaders) are available at marginal cost, remember the sheep enterprise you now don't have? Time is available.

The other issue is that CBH is then able to rationalise its bin number and reduce its non profitable high cost bin sites and balance with farm storage silos. The issue of cross subsidisation between efficient bins and small, older bins on ageing railway lines will eventually mean more rationalisation. Probably sooner rather than later, bins will be closed down and force growers to strategic bins or on-farm storage.

The challenge is for the present system to work with growers. There are now fewer growers than there were 40 years ago and soon will be

down to 3-4,000, so it is of mutual benefit to all to contain costs of storage, handling and freight to improve growers bottom line.

It is proposed that on-farm storage can lower costs, increase the value of grower's property and help substantially with harvest logistics in storage and freight and allow a more flexible marketing of grain from the farm as opposed to tying it up in the current centralised system.

Cost savings of \$5-15/t are possible or alternatively, returns on the capital investment silos of 10-20% are possible. The challenge is to make this work for your advantage.

Thank you.

David Bedbrook

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