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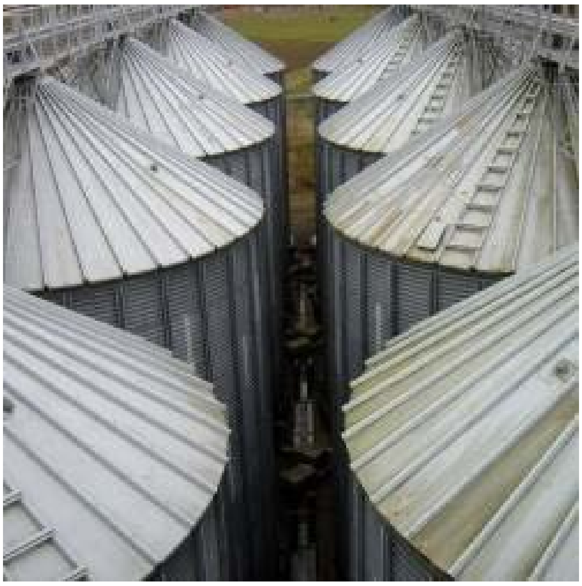
The Economics and Benefits of Central Grain Storage



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Weald Granary

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Summary of Presentation to AGM

Introduction

This draft summary report covers the key points arising from a presentation made by Roger Seed of Proseed Consulting Ltd to the Weald Granary AGM on 4th December 2007. The findings are based upon business models and analyses prepared for Hampshire Grain, and subsequently adapted for Weald Granary. This independent work has been sponsored by SEEDA as part of a project to promote central grain storage across the South East region.

The Current Situation

On-farm storage is becoming an increasingly important issue. Whilst grain consumers become ever more discerning, the increasing age and deteriorating quality of many on-farm storage facilities is resulting in more claims and rejections than ever.

At the same time a significant proportion of growers are currently looking to enlarge or reinvest in their storage facilities, especially those expanding through contract farming agreements or renting land where availability of suitable buildings is often limited. Others are considering alternative non-agricultural uses for their stores, resulting in a need for new on-farm stores or off-farm solutions.

One common theme throughout is there is little understanding or appreciation of the real costs or benefits involved in various storage solutions.

Comparing the Costs of Weald Granary with New On Farm Storage

This paper summarises more detailed work that compares the costs and benefits of 3 on-farm new build scenarios with investment in Weald Granary, a co-operatively run, farmer owned central storage facility at Hadlow, Kent.

To keep the comparison straightforward the model is based on dry wheat harvested at 14.5% moisture.

The costings identify the investment and operating cost for each option over a 15 year period and convert this figure into a total average cost per tonne per year. A number of important assumptions have been made in this analysis and the key points are detailed at the end of this summary document.

Allowing for the annual storage and haulage to store costs, this independently prepared paper demonstrates that the average annual investment and operating cost of buying rights in Weald Granary is less expensive than the installation and operation of new on-farm drying and storage facilities (flat stores with stirrers or dryer, and silos):

	Average Investment and Operating Cost per tonne per annum
New store with stirrers	£14.90
On Farm Silo	£13.84
Bunker store (no facilities)	£8.80
Weald Granary	£12.71
Weald Granary (with BATR*)	£11.95

**Allows for Business Asset Taper Relief on sale of rights at year 15; note Government currently propose to scrap BATR from April 2008*

The bunker store (flat floor barn with no facilities) appears less expensive on first inspection but crop deterioration and in-store losses due to limited management capabilities hide potentially high costs not allowed for in this cost comparison.

Other recent work conducted by HGCA (see Grain Store Appraisal for HGCA, Increment Ltd, 2006) and Grant Thornton (see The Economics of Central Grain Storage, 2006) has arrived at similar conclusions, regarding co-operative stores.

Tax Advantages of Investing in Weald Granary

Whilst each business must assess its' own particular tax position, discussions with various accountants indicate that it may be possible to treat the annual service charge (the difference between the initial qualification loan paid by the farm and the actual purchase price of the rights) as an operating expense of the farm business. Whilst this ultimately results in capital gains tax being payable on the entire sale proceeds of the rights (rather than on any gain), it effectively provides an attractive mechanism for profitable farms to reduce their income tax burden in the near-medium term – typically over 7 to 8 years.

Releasing Farm Stores for Commercial Revenue Opportunities

For those with commercial, non-farming opportunities for their existing on farm grain stores, Weald Granary can also provide a cost-effective and flexible solution.

1 tonne of grain stored 8 feet deep in a farm store requires around 5.9 square feet of storage space. At £12.71 per tonne Weald Granary costs are equivalent to around £2.15 per square foot.

Allowing for the tax payable on the rental income a commercial rent just over £3 per square foot is therefore sufficient to cover the Weald Granary costs.

Any rent received above £3 per foot is therefore available to cover the capital and running costs of a commercial premises and provide a profit opportunity.

Additional Added Value Benefits

For those who remain unconvinced by the central storage argument, this work has also demonstrated that there are significant additional added value benefits from using Weald Granary.

For example, the quality blending premium and moisture surpluses appear to range typically from £1.15-2.65 per tonne per annum, and there is usually £0.50-1.00 per tonne of contract income.

In the 2005/6 and 2006/7 marketing years the long wheat pool also outperformed the ex-farm average sales achieved by farmers across the Southern region by £1.65-£2.11 per tonne.

More strikingly, the 2006/7 oilseed rape pool appears to have outperformed the ex-farm position by around £18 per tonne, and as we go forward into the 2007/8 marketing year there is clear evidence to indicate that the cereal and rape pools have significantly outperformed ex-farm positions.

In addition to added value generated at the store there is also the potential future value of exclusive contracts to consider. Recent deals struck by Grainfarmers and central stores with Sainsbury and Coors underline the anxiety that consumers foresee in being able to procure sufficient tonnage of quality grains.

Non Financial Benefits of Central Storage

There are a whole range of non-financial benefits to consider from Weald Granary membership, from the removal of the hassle at harvest and subsequent monitoring, to the freeing up of labour.

One practical example concerning the benefits of central grain storage comes from contract farming agreements where landowners are also seeking non-agricultural opportunities for their farm buildings. Whilst the costings above stand up in their own right, central storage also allows complete capital flexibility – the opportunity to purchase and sell storage capacity in relation to the contract farmed area and duration of the agreement; central storage capacity also allows large areas of quality crops such as milling wheat to be harvested at high moisture content – an extremely valuable tool for larger contract farming ventures.

Whilst central storage is attractive in many circumstances, there are some situations where the economics are harder to justify. Existing grain stores where there is no alternative commercial use (due to potential planning restrictions or other constraints) are one typical example. A 20 year old on-farm grain store generally in good order and requiring £30,000 re-investment in plant and buildings only costs around £5.10 per tonne a year to own and run compared to the central storage figure of £12.71 and the newbuild costs of £13.85-14.90. In this situation it may only be when the store begins to physically 'fail' and become unfit for purpose that central storage may stack up, although the many non-financial advantages of Weald Granary must come into consideration.

Conclusions

Whilst central storage is clearly not the answer for every farming situation, the analysis demonstrates that:

- Weald Granary is economically attractive on a cost basis alone when compared to new on-farm facilities (after allowing for the 'second' haul to store cost),
- There is a lower initial investment cost compared to on-farm storage and drying facilities (around £25/t for a qualification loan compared to circa £150/t to erect a new grain store)
- Value from surpluses, superior marketing performance and access to exclusive contracts is substantial AND growing
- There is an excellent fit with short term contract farming and joint venturing arrangements, especially where high value crops are involved
- Capital can be realised at any time – rights in Weald Granary are a fully liquid investment – can invest and divest as individual farming situation changes
- The capital value of the rights have appreciated over time (compare on-farm depreciation?)
- There are potential tax advantages
- There is the ability to draw down against crop without arrangement fees at competitive rates compared to bank lending
- Farmers avoid the hidden costs of overdrying - fuel and weight loss
- The entire crop marketed through Weald Granary is protected by Bad debt insurance

There are also many benefits of to consider including the potential value of future exclusive contracts, the ability to release existing storage for other non-agricultural uses (subject to planning permission etc), and the reduction in hassle and stress at harvest.

Based on this evidence, Weald Granary should be a serious consideration for farmers. Indeed, where alternative commercial uses of an existing grain store are possible, there are likely to be compelling economic arguments for considering central storage as a viable option to release the buildings concerned.

Disclaimer

This summary report has been produced in good faith and is believed to be factually accurate. However, no liability can be taken for any losses incurred as a result of the proposals and alternative scenarios contained within it. The report has been constructed from information provided by various third party sources and is for discussion purposes only. It should not be used for management decisions, and it is for the individual recipient of this report to validate the data used within it. Whilst forward estimates of costs and returns are best estimates at this time, they are liable to change and can go down as well as up. Such changes can materially alter the outcome of the analysed scenarios. The outcomes are also predicated on a series of assumptions that may differ from business to business, and individual analysis is required, along with specific financial advice, to determine the best outcome for any particular business. Particular attention should be drawn to the pending changes to capital gains tax and capital allowances on plant and agricultural buildings – whilst the report has taken into consideration the current position, fiscal policies and their timing of implementation are liable to change. The author is not qualified to advise on tax matters, and whilst the tax treatment of the costs and revenues in this report have been looked at by accountants there is no guarantee that these treatments will be available to individuals or organisations – the circumstances of each case will affect the treatment of costs and revenues for tax purposes.

Assumptions Common to All Scenarios

1. Finance cost throughout the period of investment is Bank Base Rate + 1.5% = 7.00%
2. Marginal Tax rate is 22% (Income Tax) + 8% (Class IV National Insurance) = 30%; a higher rate of tax does not affect the cost ranking of the options considered
3. Moisture content of grain is 14.5%
4. Period of analysis is 15 years
5. The investment takes place in 2007/8
6. The trading costs have been calculated at today's values throughout the 15 year period

Assumptions Concerning On Farm Scenarios

1. The options involve the construction of a new grain store with associated facilities
2. Store with stirrers:
    a. £81/t building as per HGCA (2006, pro rata)
    b. £66/t plant and equipment as per HGCA (2006, pro rata)
    c. £2,500 fees and professionals
3. On Farm Silo:
    a. £19/t building as per HGCA (2006, pro rata)
    b. £121/t plant and equipment as per HGCA (2006, pro rata)
    c. £2,500 fees and professionals
4. Bunker store
    a. £76/t building
    b. £3/t plant and equipment
    c. £2,500 fees and professionals
5. The operating costs of the store are £1.70 per tonne (maintenance, cleaning and servicing, electricity, monitoring, vermin control, insurance, health and safety etc) [EFFP 2006 £1.64/t, Grant Thornton £2.40]
6. The labour costs of intake and out-take management and monitoring are £0.54 per tonne [EFFP 2006]
7. The building is eligible for Agricultural Buildings Allowances and the plant and equipment is eligible for Capital Allowances.

8. The buildings depreciate at 4% per annum straightline for management purposes (ie. the structure has a value of around 40% of its build cost by year 15)
9. There are store losses amounting to 1% of crop volume (value based on £90/t)

Assumptions Concerning Weald Granary

1. Weald Granary rights hold their value; the model is based on a purchase and sale value of £95 per tonne; in practice the value of rights can go down as well as up
2. 2% administration charge on disposal of the rights
3. Qualification loan payment up front of £25 per tonne paid by farmer
4. Balance of £70 per tonne is payable by farmer over 7 years – the annual service charge – this is an equal annual payment equivalent to a 7 year repayment loan of £70/tonne at the prevailing interest rate
5. The farmer is repaid the qualification loan of £25 per tonne over 3 years at £8.33/tonne per annum, following the end of the 7 years when the balance of £70/tonne is fully paid
6. To create a source of funds for Weald Granary to repay the qualification loan, a further 3 years of annual service charges are payable by the farmer of £8.33/tonne
7. The operating costs to the farmer are haul to store and the store operating charge totalling £9.60 per tonne
8. The on-farm costs of repairing and maintaining the temporary grain tipping area are estimated at £0.24 per tonne (a 400t covered area representing one quarter of the costs of maintaining the 1,500t bunker store)
9. The on-farm tipping and loading out labour costs are the same as for an on-farm store
10. There are no monitoring costs
11. There is a 1% loss charge on intake (this is assumed to be the same as the on-farm loss cost)