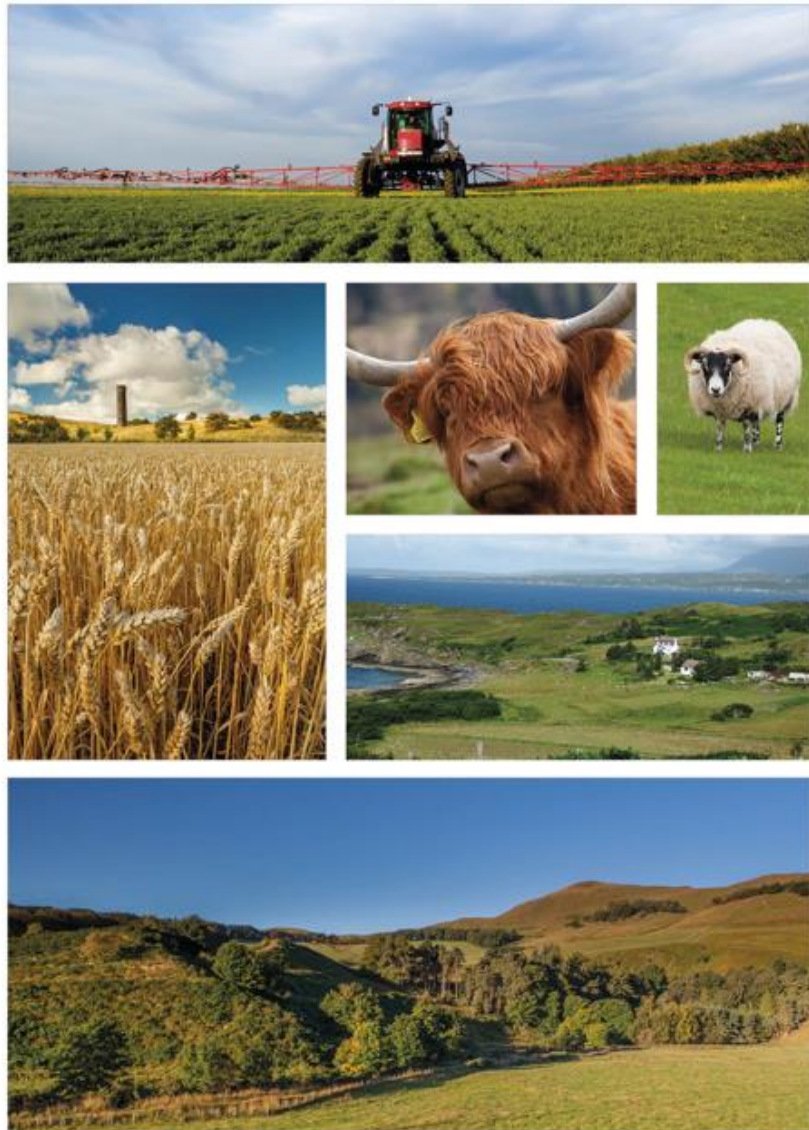


New Entrants to Farming Programme

Acquiring Farm Machinery or Livestock – the procurement process



Author – Robert Logan, SAC Consulting, Livestock and Business Consultant

Introduction

Additional or new (new or used) machinery, equipment and livestock can take your business to the next level, providing extra capacity to support expansion or make better use of existing assets and time.

There is an array of ways to acquire such items. Having multiple routes to procurement makes these items more accessible and convenient. Such deals are especially enticing for enthusiastic new entrants to farming, eager to grow but short of cash. However, this is a critical time to review priorities to help instil confidence in business decision making and help manage risk.

This factsheet outlines the decision making process required before acquiring any vehicles, machinery, equipment or even livestock. Different available finance arrangements are also highlighted although the appropriateness of these will be dependent on individual circumstances.

Rationale for Procurement

Common reasons for procuring additional item(s) or investing in their renewal include:

1. Business growth or essential replacement
2. New technologies that offer cost benefit and/or time savings
3. Help keep skilled personnel motivated and settled in work
4. Minimise tax through the Annual Investment Allowance – See FAS Farm Management Handbook for more detail (<https://www.fas.scot/publication/farm-management-handbook-2018-2019/>)

Nonetheless, confidence is required that any capital purchase (or long-term hire or lease) makes business sense.

Before calculating the cost benefit of procurement, ask yourself five key questions:

1. Do I need it?
2. Do I need that one?
3. Do I need it now?
4. Will it be worth having once paid for?
5. Can I get it cheaper elsewhere?

Do I need it?

Certainly in the case of machinery, the most common or reoccurring capital expense, it is seldom a true asset on farm. Unless it can generate additional income through hiring or contracting-out as a service, it is only a means to support production of crops or livestock that ultimately generate required profits.

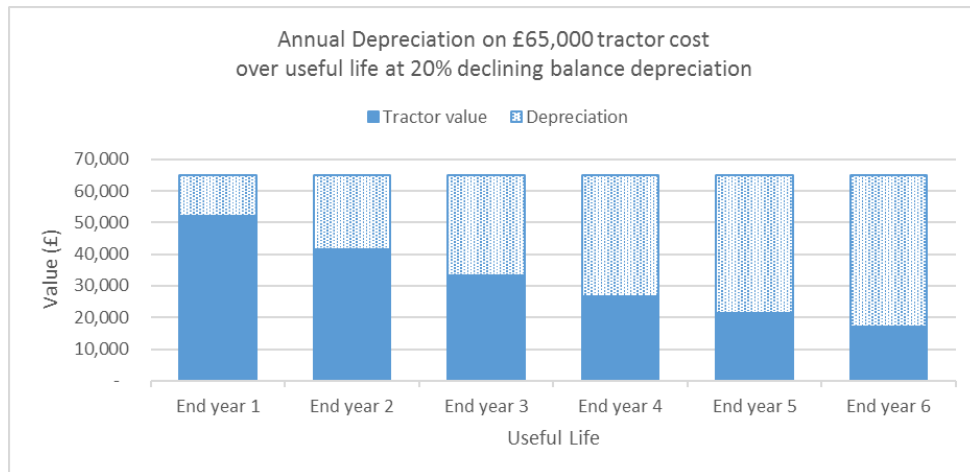
- *Any such expense must operationally add value, save time, be used frequently, and/or last for a long time.*

If your time could be better served elsewhere, can a contractor be engaged, as required, at lower cost and within a critical timeframe? This may seem obvious but do not discount it. Being receptive to contracting-out or similar arrangements, including shared machinery and/or labour, can open up many further opportunities and new business relationships.

It is also true that care must be taken to ensure incremental advances from next generation technology do not simply add cost. This is especially true if unproven / in early adoption.

Small resultant gains in technical performance (e.g. yield or growth rate) also risk being erased by larger annual depreciation costs. Such costs do not directly impact cash flow but they do affect profitability and owner equity, which also impacts future borrowing potential.

The below chart illustrates the equity lost through depreciation of an example purchased mainline farm tractor over time. This investment therefore needs to be supported by a good profitability or quick improvements to e.g. cost structure and technical performance. Without this, equity is eroded.



Be aware, where planning a renewal, that the replacement value is likely to be higher than the depreciated due to inflation, currency movements and technological advancement.

Example: New 150hp tractor and loader

If it cost £110,000 and it will be £120,000 in 4-years to renew *less* £65,000 at trade-in, that is a cost of £55,000 (£120k - £65k) or nearly £14,000 per year. At 800hrs per annum, it would be £17/hr/yr before any interest repayment, fuel, labour and repairs (not in warranty).

Operationally, the tractor may be essential but one of the other tractors on-farm probably isn't anymore.

Make use of a partial budget:

Considering the argument for and against in a structured manner such as a partial budget. A partial budget it a powerful tool to help 'small change' decision making.

This should be structured as follows: Additional Revenue *plus* Cost Saved *less* Income Forgone, and Additional Costs. See template on back page. Calculate sensitivity on listed assumptions e.g. what happens if yield changes by ±10%? This will provide a net financial dis/advantage of the proposed investment. Also consider impacts on cashflow, practicality, business flexibility and riskiness.

Avoid underutilised assets:

Farm business reviews commonly identify assets that are significantly underutilised. The enticement and simplicity of various finance arrangements make justification simpler even though it does not always bear scrutiny.

For example, some machinery is essential, some is beneficial but others a luxury. The latter is (grudgingly) most easily sorted. The question is how to reduce the cost of beneficial, if underutilised, machines. Solutions might include:

1. Cooperation – share the cost with a neighbour
2. Scale up – make better use of its capacity
3. Contract it out
4. Choose a smaller, cheaper or less expensive model

Do I need that one?

Critically determine what specification is most appropriate or financially justified. This will be informed by a partial budget, mentioned above. The decision does not necessarily dictate but it will influence future cost structure.

Example: **Costs influence on profit**

QMS Cattle and Sheep Enterprise Profitability in Scotland 2018 edition reveals that industry performance for average Scottish upland beef herds selling calves as yearlings generated a net margin of £26/cow.

Power and machinery (including depreciation and contractor charges) were around £180/cow or some 29% of total production costs. For every £5 income generated per cow more than £1 was spent on power and machinery.

This means it is a costly and significant area of expenditure, which is made more difficult to control if there are large finance commitments.

See below example based on assessing the justification of a TMR mixer wagon:

Depreciation As soon as any piece of kit leaves the dealership it loses money	(Original cost - resale value) / useful life (£22,000 - £3,800) / 8yr	£2,275
Finance Assuming <u>not</u> 0% finance	3yr interest charge / useful life (5% x £22,000 x 3yr) / 8yr	£413
Service and repairs Industry benchmark values	Repairs estimated at 3-5% of new cost £22,000 * 3%	£660
Insurance Industry benchmark values	Insurance estimated at 1-1.5% of items average value (£22,000 + £3,800)/2 * 1%	£129
Fuel	4 mixes per day x 15min per load @ 15ltr/hr 1hr x 15ltr x 63p red diesel x 200d winter	£1,890
Labour <u>Assumed family labour</u> , but what else could they be doing?	4 mixes per day x 15min per load @ £8/hr	£0
		£5,367

The average cost to the business of the above example would be £5,367 per annum. This excludes depreciation and the running cost of a tractor effectively dedicated to the wagon all winter. Neither does it include the cost of a feed shed / storage (to make best use of feed straights) nor time making any required pre-mixes.

- *Maybe as a new entrant, the above example is not deemed immediately relevant but the direction of travel in investments starts now and to aspire to what surrounding neighbouring farms may have is not necessarily the answer to the sustainability and growth of your own farming business.*

Does the TMR mixer wagon generate savings through feeding straights rather than compound feeds?

Or

Does it encourage expensive substitute feed usage?

- *Good cost control is good business, and investment in convenience or potential does not automatically mean the cost benefit is realised without that continued discipline.*

Extending the above example: There is always an argument that transporting fodder around the steading has an inevitable expense especially depending on the distance between clamp and feed stance “so we might as well be mixing at the same time”. This could be a reasonable argument but not for all.

Having calculated costs, the next question is whether the business is getting at least a corresponding response in performance through improved growth rate, health or management. If output (sales or freed time for other tasks) does not change then the £5,367 simply adds to costs.

For example, if there was no change to output so the farm continues only to sell the original 75 x 400kg liveweight growing cattle per year (per 100-cow herd), this would be equivalent to over 17p/kg lwt increase in production costs!

What are the alternatives? Admittedly, sometimes there are none but this should only be concluded after review. Some options might include:

- Out-wintering can slash costs but it is site and system dependant.
- Away wintering avoids wear-and-tear on buildings and machinery.
- Store feed nearer livestock to reduce downtime.
- Change livestock diets on annex units if e.g. conserved forage storage is difficult or expensive.
- Bulk feed every other day.
- Allow e.g. autumn calving cows to self-feed from a concrete-walled silage clamp.
- Alternatively, use of a forage box or large block cutter may suffice – they have a cost nearer £2,000 and £800 per year respectively.

Is it worth having now?

Can the business save from buy it later, although it is easier said than done. Off-season buying or leasing can result in better available deals. Conversely, earlier scheduling the hire of a tractor or machine often brings cost savings.

Every business (especially a new farming business determined to grow) should prepare a financial budget to forecast performance and required technical key performance. On the basis of said business plan, determine when it is most tax efficient to make the required investment and calculate its impact on cash flow.

In support of a financial budget, a capital expenditure budget helps estimate the cost and schedule timings of large investments. Neither of these documents ore the process need to be overly complex.

- *A financial budget will always struggle to be accurate due to inevitable changes in phasing of purchases/sales or external factors. Nonetheless, the discipline helps crystallises delivery of personal and business objectives. Equally, medium-term objectives will not be met without setting realistic (but challenging) targets by reacting with a planned and proportionate response to changes on forecast.*
- *Budget monitor allows you to plan a response to change and adapt, so far as possible – helping inform when to include non-essential purchases or indeed, how to finance them.*

Example capital budget:

Year		2019/20	2020/21	2021/22	2022/23
Item of equipment					
e.g. pick-up	residual value	8,000			
	purchase price	33,000			
	cost of change	25,000			
e.g. 130hp tractor/loader	residual value		36,000		
	purchase price		80,000		
	cost of change		44,000		
e.g. Livestock trailer	residual value				1,500
	purchase price				7,600
	cost of change				6,100
Scheduled capital expenditure		25,000	44,000	-	6,100

Is it worth having once it is paid for?

'Buy now to pay later' may help immediate cash flow while releasing the benefits of the acquisition early but this term usually means 'buy now pay *more* later' due to handling and interest charges. The total cost must be taken into account.

Some financing arrangements also encourage the hasty replacement of machines (maybe as short as every three years) despite having the capacity to achieve the same output for several more years without significant reliability issues and repairs – provided it is serviced regularly.

Example: **Essential Equipment**

Frequent replacement best suits mainline, heavily used equipment, where reliability is imperative and where large reductions in residual value are experienced once out of warranty or after a critical number of hours worked.

Can I get it cheaper elsewhere?

This relates to shopping around (although good dealer service is also valuable) and selecting the most appropriate finance arrangement. See next section:

Types of finance or procurement arrangements

Each option requires appraisal not acceptance. The decision process:

1. Gather facts
2. Assess impact on financial budget
3. Set out pros / cons
4. Decide
5. Act
6. Review

'Old school' – accumulated cash savings

Whilst somewhat old-fashioned, saving first and buying later, does tend to be most financially sound and more economical longer-term. It requires a lot of financial discipline but becomes much easier once in the cycle. Use a separate account to accumulate cash for deposit or outright purchase. This process is also a good barometer of overall business health, provided this bank balance is increasing whilst debtors or other liabilities remain in control.

Overdraft purchase

An overdraft is a secured or unsecured facility against fixed assets designed to provide a cash flow buffer that supports trading activity throughout the year. Whilst some overdraft facilities may be historically high and even the primary source of indebtedness, this is not typical for a new business.

Using a business's overdraft facility to buy or make payments against a capital purchase can be cost effective if it has a low interest rate. However, if exceptional items are financed through this facility, it leaves a lesser amount for genuine trading activity. An overdraft could technically be recalled at any time and having no formal approach to repayment also means it requires discipline if the intention is to then reduce this debt. Nonetheless, it can be an effective source of finance, particularly short-term.

Bank loan

Traditional bank borrowing tends to be less competitive than asset finance (often from sister companies). Bank lending tends to be for large, fixed and more secure assets. It may be considered for breeding herd assets but even this tends to be through similar finance companies.

Hire purchase (HP)

If ownership is preferred, HP can provide a cost effective loan with, often competitive and transparent, repayment plan. The business will not own the vehicle/machine until the final payment but you do gain the same tax benefits as full ownership. It is classified as an asset so its purchase value can be offset against tax to a maximum of the businesses Annual Investment Allowance.

There are variations on an HP arrangement but typically starts with a payment to the value of the VAT. It may also involve a 10% deposit, which could be the (part) value of the trade-in. Variations may include a service contract or end of contract balloon payment.

VAT is claimable at the outset in one VAT return unlike contract hire where VAT can be reclaimed but is chargeable on each payment. The interest element of an HP repayment can be offset against taxable profit. There is seldom an arrangement fee and you can lock into the current interest rate for the entire period

- *NB never finance a machine for longer than you will have it on the farm.*

Contract hire (finance lease or operating lease)

The whole deposit and monthly repayment can go against trading profits for tax purposes, reducing the tax a business pays (but AIA not available). A VAT registered business can reclaim 100% of the VAT if it is used exclusively for business or 50% on the finance element of the rental if the vehicle is used privately.

Equipment/machinery/vehicles on contract hire as an operating lease is classified as "off balance sheet" (operating lease only, not finance lease) improving the financial gearing of the business. This may release equity for other projects but unlikely to be available on used equipment. A finance lease (similar to HP) must be accounted in the balance sheet.

There are no disposal costs/hassle, removing some risk in the form of the future resale market. As the business does not own the asset it is simply taken away at the end of the contract period, removes uncertainty in how much asset value is left in the machine, and with no negotiation required at trade-in (finance lease, otherwise negotiated at the outset of an operating lease*).

It can include a service and maintenance contract that may even include wear and tear items. Although, this adds to the cost it does lead to a transparent charge with no large unexpected repair bills. It would normally be paid monthly. If expected running hours was 1,500hrs per annum, the total annual cost would reflect this and be divided by 12 months. The cost is often expressed per hour (e.g. total annual cost *divided by* 1,500hrs).

You can also negotiate a deal where you buy the machine at the end of the period. There may be a sting in the tail with an operating lease as the sale of the machine to the business will rebate rentals (some or all) and be fully taxable.

- *Short-term hire (leasing) can also be fully offset against tax and typically comes with no-fee service back-up useful for peak fieldwork. But expect fairly steep weekly payments and unlike HP you never own the machine or benefit from its equity value.*

* The difference between finance and operating lease can be complex since there are different connotations. From an accounting viewpoint the classification of a lease as a finance lease is important. A finance lease is simply a form of borrowing. An operating lease is a rental based on the value of the machine less its expected residual value and hours of working i.e. the rentals in the primary period do not substantially cover all of the cost (capital, interest and charges).

If "substantially all the risks and rewards" of ownership are transferred to the lessee then it is a finance lease. The transfer of risk to the lessee may be shown by:

1. Lease terms such as an option for the lessee to buy the asset at a low price (typically the residual value) at the end of the lease,
2. The nature of the asset (whether is likely to be used by anyone other than the lessee),
3. The length of the lease term (whether it covers most of the useful life).

If cash flow is an issue reflect on the business plan, previously mentioned, to appraise whether the investment is wise. Nevertheless, if e.g. you want to release cash to use on other projects (to generate further profit) or it is a solution to having a high temporary workload (e.g. at harvest), or annual purchases are already in excess of the Annual Investment Allowance (due to a large fleet, therefore, reducing the tax advantages of purchase) then contract hire can play a part.

The advantages of leasing schemes (machinery and livestock) depend on the individual's circumstances. Leasing is a complex subject and it is advisable to seek professional advice to assess the best financial alternative.

Implications of switching from HP to contract hire


- Moving to contract hire releases cash associated with the sale of the old machine.
- Maintaining a policy of purchasing a machine from replacement to replacement takes the edge of the next purchase as there is a trade-in value. Although, this can be imperfect depending on the cost of an equivalent newer model over time or due to the exchange rate.
- Moving from contract hire to purchase is more cash intensive since the business needs to buy the machine at full price.

‘Market Finance’

A lesser discussed source of finance majorly for livestock is finance through the auction market or ultimate selling agent. This has a caveat that animals purchased must also be sold through the same market but it may offer a solution to expensive trading cattle. The value to buy a shed of growing cattle becomes significant very quickly when accumulating at around £1,000 per head.

The interest charge does not tend to make it the most competitive source of finance available on the marketplace but it may be a reasonable option for some.

The key is to ensure there is a viable margin in such animals. Only this outcome can build up capital for future investments either to expand the business or reduce reliance on any finance arrangement.



Partial Budget
for _____

<u>Extra Revenue</u>	<u>Revenue Forgone</u>
<u>Costs Saved</u>	<u>Extra Costs</u>
Total Gains =	Total Losses =
Extra Benefit =	OR Extra Loss =
<u>Assumptions</u>	