

THE CHARACTERISTICS OF TOP-PERFORMING DAIRY FARMS IN THE UK – 2024 UPDATE

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By

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EXECUTIVE SUMMARY

Everybody makes different choices, even those with similar-looking farm businesses. This leads to different financial performance. Financially top-quartile dairy farmers, typically make over £120,000 per year more than the bottom 50% of dairy farms. This report, endeavours to identify actions that a dairy farmer might take to become among the best performers, updating work undertaken in 2017.

We set out to find answers using two methods; firstly, an analysis of the Farm Business Survey (FBS), matching pairs of similar farms from different performance quartiles. Secondly, two case studies then describe extremes of performance, one at a high level and the other performing rather badly.

The statistical analysis of the FBS matched farms in the top performing quartile (by return on turnover) with similar farms (by location, size and system) but that were financially performing in the bottom half of the dataset. The differences in actions were then compared.

The case studies put the findings into life. One of the farms focusses on building a clear business plan, then puts it into practice, with help from their wider team of staff and professionals. It monitors its system through sensible management and comparison systems. They check their progress against their plans. The farm proprietors manage staff well, investing in them as well as building the business to fit their preferred lifestyle.

The less successful farming case is disappointing as the farmer is disinterested in dairy farming but prefers machinery. He does not look after his farm, buildings or cows well and is not open to good advice, especially if he is advised by juniors or non-farmers. This farmer does not recognise the benefit of training staff, only the cost, so has high staff turnover. His farm is not aligned to the requirements of his milk buyer and costs are high because of a poor structure and bad decisions.

The study then suggests a series of 50 actions for improvement in a list of practical things a dairy farmer should be doing or considering as ways of moving into the next performance bracket.

The study reaches a set of concluding actions that the best performing dairy farmers do, that their poor counterparts are either not doing or are not doing very well:

1. Keep a ruthless focus on cost control
2. Calculate what your most efficient stocking rate is then make sure you get to it.
3. Concentrate on what you are best at – including your farm system
4. Know exactly what the market requires and make sure you produce exactly that
5. Know what you and the management team wants to achieve

6. Keep a very close eye on detail.

Top performing dairy farmers keep costs at a minimum without impacting output or milk quality. This is a top imperative for commodity farming and in many respects, the other actions feed into this one crucial driver of financial performance.

Consider your stocking rate. The second basic rule of producing commodities is that as margins are tight, it makes sense to maximise output. This is not per cow necessarily, as their numbers can be increased, but per hectare. Whilst there will be an upper limit, higher performers get more farming output from each productive hectare, usually with higher stocking rates.

Best performers concentrate on what they do rather than dabble in all sorts of things. Keep to dairy farming, know your dairy-farming system, and spend less time with other livestock enterprises for example.

The best dairy farmers are paid an extra 1.7p/l over the lower performing producer. Keep milk clean and drive your farm system to produce the constituent parts that your milk processor requires.

Knowing what you want to achieve is important so you know when you have got there and when to celebrate. Have a short-term focus (budget) and a long term business plan. Build in your and other key people's wishes and share the plans with those who can help you achieve your dreams.

The devil is always in the detail. Keep a close eye on key performance indicators that might flag an early warning if something is not quite right. Whilst it is impossible to know every little detail of your farm business, it is important to be able to see when they go wrong.

Finally, farming is an industry that provides far more than simply financial rewards, offering a way of life that most would not swap. Most farmers are hard-working, a necessity for success, but to raise performance requires change which often involves bravery and self-belief to do well. Focus on the things that make you and your business partners happy, but within that, make sure that your business is viable.

CONTENTS

1 INTRODUCTION..... 6

1.1 BACKGROUND AND PURPOSE OF THIS REPORT 6

1.2 THE APPROACH..... 8

1.3 DEFINITIONS..... 8

1.4 CAUSATION 9

1.5 OTHER LITERATURE.....10

2 FARM BUSINESS SURVEY ANALYSIS 13

2.1 MATCHING PROCESS.....13

2.2 COMPARISONS BETWEEN TOP AND BOTTOM PERFORMERS14

2.3 ANALYSIS OF RESULTS.....15

2.4 RESULTS19

3 CASE STUDIES 21

3.1 BLEAK FARM, THE BOTTOM PERFORMER.....21

3.2 TOP OF THE HILL FARM, THE TOP PERFORMANCE FARM.....24

4 CONCLUSIONS 27

4.1 TOP TRAITS OF HIGH PERFORMING FARMERS27

5 APPENDIX 1 ~ 50 WAYS TO BE OUTSTANDING..... 30

BIBLIOGRAPHY.....35

1 INTRODUCTION

1.1 BACKGROUND AND PURPOSE OF THIS REPORT

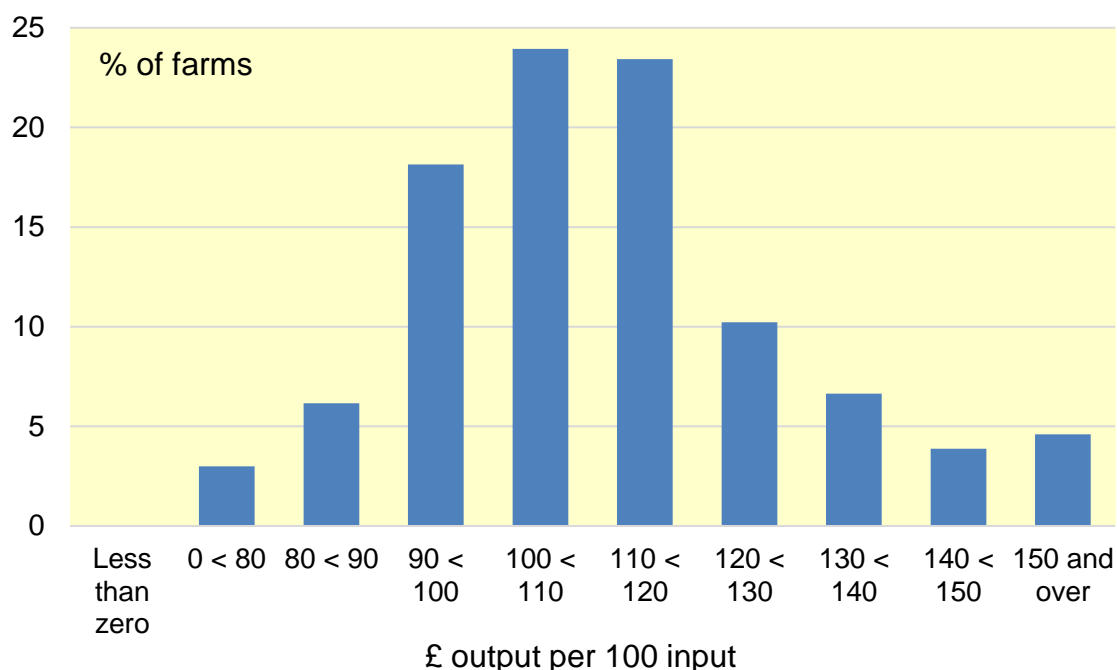
To the outside observer, dairy farms are all similar; they produce the same product using (usually) the same type of animal, fed grass or forage and sometimes a few other feeds. The truth is of course, rather different, with various production systems, making this farming sector arguably more complex than many others with multiple outputs. Regarding the management of the farm, each choice the farmer makes potentially has an impact on the bottom line. The impact from some decisions will be considerable, others insignificant. Lots of good choices leads to excellence. Lots of poor choices, leads to hardship. Sometimes, the right choice is not obvious. This makes the range in financial performance in the dairy farming sector surprisingly large.

This paper builds on a series of publications from 2017 and 2018¹ exploring the differences in performances between the top 25% of dairy farmers and the bottom 50%. What are the highest achievers (in financial terms) doing that their less financially successful counterparts are not? This is an update of the previous piece of work.

Dairy farming is not a process of simple rules, that anybody can follow like a recipe for a cake, but a complex, dynamic network of resources that need combining in a way that generates high quality milk, that a market is willing to pay for. This generates more variation in farm systems than weather or soil types combined as the choice of how resources are combined is limitless.

Figure 1 shows just how broad the spread of performance in dairy farming is. It shows the range of returns achieved by all dairy farming systems in the Farm Business Survey, for every £100 of expenditure made. The returns vary widely making anything up to £80 (i.e. losing between £20 to £100 for every £100 spent) and making over £150. In other words, some farms are haemorrhaging cash from their businesses, whilst others are consistently making 50% profit from every pound they spend. And all in the same time period. How can this be?

Figure 1 ~ Distribution of performance across Dairy farms (England), 2021/22 (£ output per £100 input)



Source: Defra: Farm Business Survey

This report provides evidence of how UK top performing dairy farmers operate differently to their less successful peers. Actions have been examined to see how top quartile farmers make different decisions, do different things and perform activities in differing ways to others. This is therefore intended to provide a guide to farmers looking to raise their *own* financial performance regardless of which quartile they are currently classified in or consider themselves to be in. Comparisons are made between high performing, and poorer performing farmers to highlight differences. Averages have the potential to be misleading, so ranges of performance are addressed where possible and case studies and direct comparisons are used too. This study is not written to tell farmers how to farm, but to suggest some ways of providing a strategic framework to change for the better. Why should people change? There is always a way to improve and simply, life is too short not to.

The backdrop to this report is the policy transition period in England. Farmers are going through the process of their Basic Payment declining to nothing after 2027, and the rise of payments for public goods, which, given it is a form of market correction and not subsidy, is likely to be a less lucrative form of Government support for most. Policy in other UK countries is likely to change in coming years too. Dairy farmers have not, historically been as involved in environmental schemes as, for example, the other grazing livestock sectors, largely because so much more farming tends to take place on each dairy hectare, and, simply, it has been more

profitable. If the dairy farming sector wishes to retain some government support, this will have to change.

1.2 THE APPROACH

This paper has a double track approach to identifying the key actions of top performers. Firstly, a statistical examination of the records of the Farm Business Survey (FBS) data has been made. The FBS is undertaken by country. Only the English survey was used here because of time constraints and data consistencies, but the geographical scope of the AHDB is broader. The results are relevant in any devolved region. This study encompasses the entire UK. In simple terms, if a farmer is doing an outstanding job, the location is seldom the determinant.

The second approach is to describe two extreme dairy farms, that are operating at opposing ends of the financial performance spectrum. This gives two real-life examples of actions farmers are taking and how their decisions lead to outcomes on farm and therefore on the bottom line of the profit and loss account. The case studies are written to inject life and reality into the list of things the study generates from analysis of data.

Finally, at the end of this paper, is a list of 50 things that a dairy farmer should consider, to undertake, that would help increase their financial performance. They might not all be relevant to every farmer, but are tailored to suit dairy farm businesses. If every idea made a small improvement in the farm business, then the overall impact would be considerable.

1.3 DEFINITIONS

The definition of 'performance' will depend on what the individual is trying to achieve. Measuring it will therefore also vary accordingly. Part of the definition of 'farming' is undertaking activities for commercial gain, and this is what is measured here. Most farmers value other benefits of farming such as accommodation and lifestyle. A farmer should value those separately. Financial performance can be measured in various ways such as highest profit, greatest balance sheet increase or highest return on capital. In this study, performance is measured as; sales generated by the farming operation divided by the costs associated with it. This creates a **return on turnover ratio**:

$$\frac{\text{income generated by the farm}}{\text{costs associated with it}}$$

Figure 2 ~ Demonstrating Typical Returns on Turnover

	Farm 1	Farm 2	Farm 3
Turnover (farming income)	70,000	450,000	900,000
Costs	50,000	400,000	840,000
Profit	20,000	50,000	60,000
Return on turnover Ratio	1.4	1.125	1.03

Using this method, farms of varying sizes can be compared; it examines how a farmer manages to convert inputs into outputs. It is the return that a farmer has managed to generate as a proportion of their output. This suggests that a farmer with a large estate receiving millions of pounds of sales and making £200,000 is not as successful as a small business with minimal turnover and making £50,000. Figure 2 demonstrates that out of the 3 examples, whilst the last one is making most profit, its return on turnover is the lowest, and the small farm (1) is generating more profit as a percentage of its turnover.

Some consider the return on capital as a more critical determinant of business performance and in some situations, it is. However, businesses can remove nearly all their own capital by borrowing money and therefore improve the return on their own capital but lowering profits (finance costs rise), raising business risk (high gearing) and potentially jeopardising business viability (dependant on continued support by the lender). Other business managers might leave excessive capital in their businesses, have no borrowing at all but also leave an inefficient return on investment. This makes return on capital difficult to use as a tool for comparing performance. The matching approach employed in this study uses the agricultural cost-centre only. This is the costs and revenues solely to do with farming rather than the fuller, more diversified rural business that many farms have become. Other parts of the report explore the entire farm more widely.

1.4 CAUSATION

Identifying links between top performers and their activities is relatively easy, and the statistics have achieved that, but the causation link is not necessarily as obvious. For example, rich people drive more Aston Martins than poor people, but that is not why they are rich.

Similarly, with farms there are relationships between factors without the cause being explicit. One thing might cause the other or vice versa. Of course, a third factor might be driving them both. For example, the FBS analysis identified that larger farms tend to outperform smaller

farms. Does this mean that a small farmer has to become a big farmer in order to improve? Almost certainly not. What is more likely, is that the better small farmers, make more money and therefore have the capacity within their farms (financial and management ability) to take on more land. They therefore grow over time and become successful large farmers. Less successful farms are more likely to have to sell land to pay for liabilities, thereby becoming smaller.

Sometimes causation is difficult to prove. But for farmers wishing to develop a business, mimicking a top performer is likely to be worthwhile regardless which way round it works (perhaps apart from buying the Aston Martin just yet).

1.5 OTHER LITERATURE

Since the last Edition of this report, little new work has been published in the field of what makes farms perform better. However, one notable set of reports has been published by Defra. The Edition most relevant for review here, written by Nicolas Jones explores the Characteristics of High Performing Dairy farms in England².

Jones identifies that geographic factors such as location and soil type have a minimal impact on the financial performance of dairy farms, and only a minority of factors affecting farm performance are beyond the farmers' control. This suggests almost all the determinants of success are down to the farmer him or herself; the decisions made on the farm and how they are implemented. To improve financial performance in terms of ranking in your farming sector, you cannot depend on the markets as that affects everybody. A rising tide lifts all boats. These main conclusions are exactly the same as the outcome of the this study. However, not all the specific actions are identified as having equal impact, and this will vary according to the sample of farms used as well as the method of analysis in the research.

The paper refers to top performance in economic terms using a similar calculation to that which we use. Jones also identifies a series of actions that correlate either positively or negatively with farm performance. These actions are summarized in the table below.

Figure 3 - Factors Related to Farm and Business Performance (Jones 2020)

Variable	Farm Business	Agriculture
Debt	↓	↓
Organic	↑	↑
AES Participation	↔	↓

Variable	Farm Business	Agriculture
Specialisation	↓	↓
Diversification	↔	↓
Unpaid Labour	↑ ↓	↔
Herd Size	↑	↑

↑ indicates a positive relationship with performance, ↓ indicates a negative relationship, and ↔ indicates no relationship.

Debt is clearly a burden for dairy farming, arguably more than it is in other businesses although this is not proven. Both short-term and long-term debt are statistically higher in the poorer performing farm businesses, and this held true for both the farming part of the profit and loss and the entire business. Jones raises the question of causation here; are the farms forced into debt because they make insufficient money to cover costs and reinvestment? Or, do some farmers over-burden themselves with debt which pulls their overall performance down. The paper nods towards both scenarios potentially being the case as the impact holds true for short term (cash-flow) and long term (capital based) lending.

In dairy farming, it is difficult to be 'partly organic'. Arable farmers can allocate part of a farm to organic or non-organic practices, but the grazing rotation of cattle, collection of forage and usually a single milking herd on a farm, precludes this choice when milking cows. Cows on organic farms generally have lower milk yields and are fed less concentrated feeds than non-organic herds. This means that a greater proportion of milk is produced from grass which is cheaper than bought-in feeds. The sales as a proportion of costs is therefore greater in this situation. This analysis will be influenced by the relative 'health' of the organic and conventional markets at the time it is done, but being an average over 5 years, largely negates this market-based impact.

As agri-environmental schemes generally incentivise farmers to forego some of their agriculturally productive land to provide environmental goods, it is economically more logical that those farms making less money per hectare will be more attracted to fixed rate schemes such as these. Furthermore, the more farming that is taking place on each hectare, and therefore the more money each hectare is generating, the more will be forfeited when switching to an environmental scheme. It is therefore also logical that less intensive farms (not just dairy) are more likely to enter these schemes. However, Jones claims that no relationship is identified between agri-environmental scheme participation and the entire

business performance, suggesting these schemes are sufficiently compensating for the incomes foregone.

Specialisation is a difficult area to interpret. It considers other agricultural (non-dairying) operations. This could include those totally unrelated to the dairy, but also youngstock and forage production. Whilst there are good reasons why dairy farms that produce their own youngstock and forage might outperform those that don't³, by keeping the best stock, and ensuring the best fodder, it might be equally comprehensible that those who run a sheep flock or beef herd might be distracted from the main enterprise. Here, Jones concludes that specialisation reduces the performance of the farming and business. Take care though to reflect on your own business before making and changes on the back of it. It might be more complicated than it seems.

Diversification is similar, but easier to interpret than specialisation as it involves the addition of non-farming enterprises. If they can be implemented and operated without taking necessary resources from the dairy operation (management time, land, capital etc), then they should add to the overall business. But often, with limited resources on all businesses, they need sharing which takes them away from the dairy. Jones analysis identified that the reduction in dairy performance is about equal to the additional return generated by the diversification, making it neutral to the overall business.

When you impute an opportunity cost for unpaid labour (what somebody could earn if they worked off the farm), the benefit of the unpaid labour is removed. In other words, Jones claims the farm would have been better off paying somebody to work on the farm. Payment focusses the mind and restricts hours spent doing something. The table shows arrows in both directions. This is because people who are part of the business spend more time working on making the farm better, which improves the farm, but also makes the return on each hour worked progressively lower.

Finally, the return of scale is demonstrated clearly in the dairy sector. If you have a parlour, it makes sense to put as many cows through it as practical, thereby spreading the high capital and operational costs. This explains why dairy farms have been growing in size over the last 20 years.

2 FARM BUSINESS SURVEY ANALYSIS

2.1 MATCHING PROCESS

The Farm Business Survey (FBS) is an annual survey providing information on the physical and economic performance of farm businesses in England. The sample of farm businesses covers all regions of England and all types of farming with the data being collected by face-to-face interview with farmers. The Farm Business Survey sample covers over 2,000 farm businesses each year.

Here, we use the FBS data for dairy farms for the five years from 2017-18 to 2021-22. Data is averaged across the years to smooth out the effects of annual volatility for individual farms. Performance is measured as the ratio of total value of agricultural sales (i.e. excluding subsidy income) to total cost of agricultural inputs. A farm will therefore record a higher level of performance if it produces more outputs for a given level of inputs, or, in other words, if it is more efficient in its use of inputs. This project involved matching each farm in the top quartile of the performance distribution with one in the bottom half of the distribution.

They were matched to be comparable with location, amount of farming taking place (measured by standard labour requirementsⁱ), organic status, LFA status and hours of unpaid labour. This ensures that the comparisons after matching, concentrate on factors that are potentially within the control of the farmer, rather than factors related to geography and farm size and system that are relatively fixed. Including organic status at this point means that the relative performance of organic versus non-organic herds cannot be compared in this analysis.

Performance was based on the ratio of output to costs for the farming. In other words, it focusses on the farming aspects of the overall businesses. Some farms are less about growing commodities, and more about making more varied use of the resources within the business. However keeping costs and sales to the agricultural operations, and not the diversified ones keeps the data more meaningful, relevant and comparable. Family labour is often unpaid. Here it is imputed at the National Living Wage⁴. Other costs are not imputed where they are not incurred. For example, rents or finance costs are as they are within the business. This therefore compares businesses with the resources they have, rather than if all farms had the same

ⁱ Standard Labour Requirements (SLR) do not measure the amount of labour on a farm, but are a measurement of the amount of farming taking place within the business. Each unit of input (dairy cow, hectare of wheat etc) is allocated a standard amount of time regardless of farm.

resources such as land tenure and finance. Farms were included where they were classified as dairy farms in each of the surveyed years, and were present in at least 3 of the 5 years (2017-18 to 2021-22); 220 farms met this criterion, so that the top quartile contained 55 farms which were included in the matching process.

Multiple matches were allowed, i.e. several top-performers may be paired with the same below-average performer. Where more than two top-performers were matched with the same farm, the matching process was repeated for these farms, but with increasing thresholds for detecting a match and with the final match selected at random from those matches less than the threshold. This process was continued until no more than two bottom performers were matched with the same top performing farm.

2.2 COMPARISONS BETWEEN TOP AND BOTTOM PERFORMERS

A wide variety of variables were tested – this was very much a screening procedureⁱⁱ. Going through the variables in turn, key points are:

1. **Agricultural costs:** the total spending between top and bottom performing farms does not differ significantly, but *what* they buy is revealingly different
 - top performers spend a slightly smaller proportion of their expenditure on overheads such as machinery, and more on variable costs such as fertiliser.
 - general farm costs and machinery costs are higher for the matched bottom performers.
2. **Agricultural output:** top performing farms generate a higher output per hectare and per SLU than the lower performers.
3. **Contracting:** after matching, top performers make significantly more use of contractors.

ii For those interested in the statistical process; continuous variables were compared using a paired t-test for the matched couples, whilst categorical ones used a chi-squared test. Some key variables were included in both continuous and categorical form. All figures used FBS data from 2017-18 to 2021-22. Variables were averaged across years, using a simple mean, except for categorical variables where the mode was taken.

4. **Farm area:** top performing farms are slightly larger, but the matching process removes this difference, as was intended. Top performers are increasing in agricultural area, whereas bottom performers show a small decrease.
5. **Stocking rate:** top performers tend to have significantly higher numbers of cows per hectare (at 2.2GLU/ha compared with 1.8GLU/ha).
6. **Mix of enterprises:** top performers are significantly more specialised, with the percentage of farming output from dairy at just over 75%, compared with 68% for the matched bottom performers.
7. **Milk price:** top performers average around 1.7p per litre more than bottom performers. This difference is highly statistically significant.
8. **Agri-environment schemes:** bottom performers have more agri-environment income per hectare, but the difference is not statistically significant after matching. The difference is much smaller than in the 2018 analysis.

2.3 ANALYSIS OF RESULTS

Here we explore the items from the list above individually.

1. **Agricultural costs:** After matching, overall agricultural costs per hectare are not significantly different and neither is the difference in the percentage of fixed costs, although the average is slightly lower for top performers. The share of costs attributable to fertilisers and to labour is significantly higher for top performers, whilst general farm costs and machinery costs are higher for the matched bottom performers. This suggests that its not the spending of money that changes the performance of a dairy farm, but *what* it is spent on.

Closer interrogation of the data reveals a considerably higher spend (21%) on fertiliser for the top performers than the low performers. This can be interpreted as a bellwether, i.e., it not just the spending of more money on fertiliser that makes the difference, but probably, the level of attention and professional care that is given to the grass and other forage crops that the livestock are going to eat that moves a dairy farmer into a higher level of performance. Are you a livestock farmer or a grass farmer with livestock on it?

Most of the spending differences here are marginal, and some not statistically significant. However, when they all add up, they make a difference. That the top

performers spent *slightly* less is indicative of the marginal gain concept; do everything a little bit better, then the overall result will be transformational. As there are so many variables in the dairy farming system, if each is undertaken with slightly better attention, such as better timing, improved cattle stress, better nutrition and so on, then the overall picture will be transformational.

2. **Agricultural output:** before matching, top performing farms generate a higher output per hectare and per SLU than the lower performers. The matching process removes much of this size effect, but top performers still achieve significantly higher output value. It is noteworthy here, that the output is not measured per cow but by farm area and amount of farming activity. In other words, simply maximising yield per cow is not simply what the better farms are doing. Clearly, one of the key variables in dairy farming systems is yield per cow (often associated with all year round or seasonal calving and therefore production patterns). Both high yield and low yield systems can work, as long as the entire farm system is aligned to that particular method of production.
3. **Contracting:** after matching, top performers make significantly more use of contractors. This is measured as a proportion of total machinery, so is a measure, not of contract rearing of youngstock, but more of mechanical operations, be that forage harvesting, cultivating land, fence maintenance or hedge cutting. The headline cost of hiring another firm to bring their own machinery to do a job for you might appear expensive, but this is because the costs of that operation are all wrapped into the price asked by the contractor. Owning machinery, and leaving it in a shed (or nettles) for 51 weeks of a year, also incurs considerable cost, but is not as explicitly visible. Depreciation, for example, is not a cost that takes from the cashflow but does burden a business for several years whilst the capital cost of that machine is paid off. The contractor supplies the labour too, meaning less is required on a day-to-day basis on farm. Again, this saves costs. The other benefit of outsourcing such operations, is it allows the farmer more space to focus on the grass and the cows, the two things that matter most on their farm.

Some farmers claim that you take more care over your own fields, and contractors 'just want to get done', but they have more time with machinery to develop expertise each year. These benefits come through in this analysis. Over the last five years, the capital and maintenance costs of machinery have risen sharply, and mostly ahead of inflation,

making machinery ownership dearer than before. Contractors may also have better machinery for the job, e.g. a high-capacity forage harvester or low ground pressure slurry tanker, that an individual farmer may not be able to afford or justify. Thus, contractors have been able to offer better value services.

Note that this variable is just an indicator of the relative importance of contracting, and should not be interpreted as indicating the proportion of the work done by contractors. Nevertheless, this result is in line with similar work in other sectors too. Focussing on what you know how to do, outsourcing or delegating work to trusted partners (contractors) and trusting in them is good business. It also saves having to buy more expensive machinery in many cases. Curiously, there is not a statistical difference in performance between those farms contracting out their calf rearing, and those managing it in-house.

4. **Farm area:** top performing farms are larger on average, but the matching process removes this difference, as was intended. The change in utilisable agricultural area (UAA) variable remains significant after matching: Interestingly top performers show an increase in agricultural area over the five year period, whereas bottom performers show a small decrease. The best farms are growing and the worst are shrinking. At this point we should reflect back on the section on causation; they might be growing because they can, rather than that they are more profitable because they are growing. It takes a lot of money, investment and time as well as risk to grow a business. This is regardless of the additional effort and planning required. Poorer performers will be less able to invest in growth. Indeed, as the opposite also holds true, declining business size releases cash, often by sale of resources (e.g. heifers), which will help those struggling with cash flows.
5. **Stocking rate:** top performers tend to have significantly higher numbers of cows per hectare (at 2.2GLU/ha compared with 1.8GLU/ha). More farming is taking place on every hectare of the farm making the business more intensive. This is making efficient use of one of the most expensive and limiting resources on the farm – the land. Clearly businesses can buy and rent land but that is not always as easy as extending other resources such as finance, or labour. There are several ways to fit a greater number of productive cows onto a fixed area of farm. Outsource the youngstock rearing? Buy in more fodder and other feeds? These would lead to major changes in a farming system so decisions need to be carefully made. Top performing farms in this study do not

contract heifer rearing out any more than poorer performers. Similarly, they spend no more (or less) on bought in feeds either. Before making big jumps in farm system, make sure the grassland and other resources are already being very efficiently utilised.

6. **Mix of enterprises:** the breakdown of the farm's agricultural activities into different enterprises shows that top performers are significantly more specialised, with the percentage of farming output from dairy at just over 75%, compared with 68% for the matched bottom performers. This is also reflected in the lower agricultural diversity for the top performers. Bottom performers have significantly more sheep. This point contrasts with that observed by Nicolas Jones in Defra's paper (see section 1.5) under 'specialisation'. However, as suggested above, this may be the interpretation of what constitutes as dairy farming (e.g. youngstock and forage management). The evidence here is clear that if you start expanding into grazing livestock, the farm performance is likely to fall. There are potentially two factors at play here. An additional enterprise that requires daily management such as other livestock is going to detract from the time and care spent on the dairy. There are several times of the year when a sheep flock demands attention. Lambing, shearing, scanning, as well as trips to market, which can easily cost a whole day. The second factor is that any other (livestock) enterprise is almost inevitably going to offer less profit to the farm. Almost regardless how it is measured, a dairy farming enterprise is more valuable than sheep, so why would you diversify into a lower value venture?

The more things you have to concentrate on, the less time you can concentrate on each one. This is the case here too.

Multitasking is doing two things badly.

This quote is not new and could probably be attributed to several sources. However, here, I associate it with Gary Keller from his book *The One Thing*⁵, where he discusses the route to success is to focus all your energy to one goal, and one goal only.

7. **Milk price:** milk price is assessed relative to the average each year, in order to avoid the distorting effect of farms not all having data for all years. Before matching, prices are not significantly different. After matching, top performers average around 1.7p per litre more than bottom performers and this difference is highly statistically significant, probably because the distorting effect of regional differences has been removed. It suggests higher performers are keeping milk clean and free from

antibiotics more, and producing something more in line with what the processor is wishing to pay for. There are so many milk contracts all incentivising the farmer to supply slightly different constituents and seasonality incentives. Understand your contract and tailor your system to match the buyer's preferences or find a contract that better rewards your production system.

8. **Agri-environment schemes:** bottom performers have more agri-environment income per hectare, but the difference is not statistically significant after matching. The difference is much smaller than in the 2018 analysis.

In the last report in 2018, we identified that agri-environmental schemes would be more appealing to less profitable farms as this offered a fixed and reasonable income. A moderate fixed income will be more attractive to loss making farms than those making healthy profits. Therefore, we might have expected lower performing farms to participate more in the past, just as we have historically expected farmers to allocate their less profitable land into the schemes.

Now, agricultural policy is changing and becoming a standard way to generate an income from Government funding. Whilst the agri-environmental income is likely to remain more attractive to lower performing farms to an extent, they are also becoming more attractive to high performers as agri environmental schemes become more generous and attractive to all farm types. Some of the (higher value) options that are becoming available in agricultural policy schemes offer a generous and guaranteed income in exchange for land use change for a minimum period. Other actions are simply to reward good practice. Many (good) farmers will be undertaking these actions already so will be able to receive the support with no change to their farming systems. This is the easiest way to make money from support. More of the better farmers will see this and start using the schemes more.

2.4 RESULTS

Figure 4 compares the average income for the top performers with their lower performing counterparts. Top performers are making almost three times as much money; over £100,000 more per year. Despite farming conditions being very different now than 5 years ago when the original report was produced, and policy having changed considerably, the difference between the top and bottom farmers in the dairy farming sector is similar to where it was before.

Figure 4 ~ Dairy Farm Business Income £/year – after matching

Mean of top performers	Mean of matched bottom performers	Difference
£169,300	£42,800	£126,500

Figure 5 provides a summary table of the paired actions we have explored and discussed in this analysis. Here, they can be viewed side by side.

Figure 5 ~ Variables between top and bottom performing counterparts (Pairings) ~ Dairy

Selected variables	Mean of top performers	Mean of matched bottom performers
Agricultural output (£'000)	588	429
Total agricultural costs (£'000)	462	436
Stocking Rate (GLU/Ha)	2.2	1.8
Relative milk price p/l	+1.7p	0p
Dairy as a % of SLR	76%	68%
AES payments per ha	20.9	24.3
Owned land as % of total land	65%	55%
Unpaid labour as % all labour	53.4%	56.4%
Of which %;		
agriculture overheads	41.6%	43.6%
Machinery costs	13.3%	15.4%
agriculture variable costs	58.4%	56.4%
fertiliser costs	4.0%	3.3%
Contracting (as % of all machinery)	30%	20%

3 CASE STUDIES

In this section, we have an example of two rather extreme farms. They are real farms with names and small details changed to prevent their identification. One operates in the top quartile sector, and indeed at the top of that, and the other one is at the other end of the performance spectrum.

3.1 BLEAK FARM, THE BOTTOM PERFORMER

Steve has a herd of 100 all-year-round calving cows in the South West. He inherited the farm from his parents debt free, but is angry that they left a farm cottage to his non-farming brother. He often says that his farming fortunes would be different were he able to have an extra income from renting the cottage as a holiday let.

Over the years he has spent money on sheds and machinery but he does not maintain them well. As a result he built up a large overdraft which the bank has combined with his hire purchase agreements into an interest-only long term loan. The increase in interest rates has had a considerable impact on his business and he is struggling to make payments. To this extent, he sometimes has to cull cows from his milking herd to meet his cash needs. The loan matures in 5 years but he has no plans on how to repay the capital when the time comes, possibly, simply extending with a new loan if he can. He is putting that to the back of his mind. His bank manager, Sarah, has worked with him for the whole time he has been in such measures. Steve dislikes her and feels threatened by a woman having an influence on his farming business. He puts together financial projections to keep her "off his back" which rely heavily on imagination as he has no costings or management accounts to work from. He often makes threats to the bank or is rude, believing that he has a right to farm and they have a duty to support him to do so.

Three years ago, Steve installed two robots, paid for on finance. He did this because he dislikes milking and is not particularly interested in being around cows, preferring machinery work and looking at cow diets. He chose the brand of robot based on which sales representative he got on best with, and didn't speak to any other farmers independently before doing so.

The herd is a mixture of Holsteins and Brown Swiss, they are run as one group so the Brown Swiss are overfed and do not justify their feed rate. The farm nutritionist has formulated a ration designed to support production of 10,000 litres of milk per year, but the cows struggle to hit 8,000. Steve is keen to be a 10,000 litre producer so keeps adding extra feed and speaking to sales representatives about yield boosting techniques, however he does no forage

analysis and often stores his straights in open areas where they are picked at by vermin. Milk from forage is under 2,000 litres/cow/year.

Milk is sold on a solids contract but the cows struggle to meet the standard litre and so milk price is consistently lower than the headline price. This makes Steve angry as he believes the milk buyer is being underhand with his pricing. There are liquid contracts around that would better suit his system but Steve would prefer to stay with his buyer as they have good farmer meetings with a free supper.

The farm has been under TB restrictions for the last five years and is in a high risk area. Steve goes from test to test with no strategy to manage the consistent breakdown. In many years he has been short of cows and had to buy in animals, using a cow finance loan from a broker to do so. All beef calves are retained and finished on farm as Steve didn't like that they were worth less when sold as calves compared to those from a TB free herd. He doesn't have enough shed space so rears them in calf hutches. These are on muddy ground and visible from the road, stoking comments from 'nosey' onlookers and villagers. Calves of both sexes receive insufficient colostrum, and scouring calves are starved. Those with respiratory problems are always given antibiotics and beef calves are fed waste milk (of which there seems to be quite a bit). Calf mortality is inevitably high. At his latest herd health review his vet challenged him on this management and suggested more appropriate techniques. He snapped at the vet that he wouldn't take advice from someone fresh out of university and refused to work with her again. He is now looking for a new vet.

Fertility is poor, with the Holsteins exceeding a 400 day calving interval and the Brown Swiss struggling to achieve 420. Youngstock are set stocked and have poor growth, calving at nearly three years old as Steve was told by his father that Brown Swiss weren't ready to calve until then. The milking herd has problems with digital dermatitis and the (now sacked) vet suggested more frequent foot bathing. Steve put footbaths at the exits of the robots but doesn't change them frequently, so the cows walk through a tray of slurry. As a result there is a very high prevalence of lameness. Steve does some 'creative mobility scoring' for his milk contract.

There is one member of staff on farm who is full time but self-employed and paid minimum wage. Steve doesn't have any protocols or policies in place for him and refuses to invest in any training. He has asked for a change in their working hours but Steve refused it saying he is lucky to have any time off at all as Steve himself works seven days a week.

Steve likes machinery so has built up a fleet to cover all eventualities and tasks on farm. His plan is to do all field work himself, but with the beef cattle and three years' of youngstock he sometimes runs out of time and has to pay a contractor. As a result his overhead costs are high with depreciation and repairs on his owned machines, HP payments, and the cost of contractors. As he isn't a regular client and is slow to pay he is far down the list with the contractor and his silage is usually the last to be cut, meaning that its quality is not always great. This year, it was gathered in poor weather conditions leading to soil contamination.

A neighbour once suggested that Steve join her discussion group, but he refused as he struggles to take time off farm and didn't like the idea of sharing farm information. His main interactions with other farmers are at supplier meetings, local trade events, and through online farming groups. He likes that here he can speak to other farmers who share his thoughts that they are powerless victims of the supermarkets, and no one tolerates any "PC nonsense". Steve has a footpath on his farm which he makes a point of making unattractive and difficult to walk.

Steve has two teenage children, his daughter is interested in the cows but he tries to put her off by saying there's no money in farming and she'd be better off working in a shop. He has no Will and has never considered succession planning. Steve believes that by rights his son should inherit everything to keep it in the family name.

The business is now in a position where it struggles to meet cash needs and is unprofitable, with the farm living off the depreciation generated by having so much machinery. The farm has relied on BPS for years and would not be viable without it. The poor relationship with the bank manager means that the overdraft may not be supported for long, as the farm is showing no signs of technical improvement.

Under Performing Farm Summary

- A muddled and badly executed farming system leads to poor productivity
- Lack of care and misuse of buildings and other capital items becomes expensive.
- Without a plan for the future it can be difficult to keep a business viable, short term or long term. Be open minded about who might be best positioned to take on the business in future.
- Take advice from specialists and experts
- Keep overhead costs to a minimum, focus your spending on things that will improve the output.

3.2 TOP OF THE HILL FARM, THE TOP PERFORMANCE FARM

Peter and Jane are established spring block calvers in the Midlands, having converted their herd from all-year-round calving Holsteins in the early 2000s. This was driven by lifestyle factors and wanting to make the business more resilient. At the time they were struggling with profitability and meeting repayments on a loan taken out to buy out Peter's sister.

Since then, the business has grown and improved and they now milk 300 cows, calving in a 12-week block with 85% born in the first six weeks. The cows produce 500kg of milk solids each from just over a tonne of cake, and the focus is on milk from grass. Depending on weather conditions, the cows graze for up to ten months a year, making use of good grazing infrastructure to access pasture in the shoulder months.

Peter and Jane have two children; a daughter, Lucy, who is working on a dairy farm in Australia following an agricultural degree and a son, Ben, who is training to be a nurse. Lucy wants to return to the farm but they are keen for her to work on other farms and in different systems before she comes back. The whole family used a succession facilitator when Lucy graduated to put together a plan for the future; based on this Peter and Jane are now actively taking cash out of the business and investing in assets off farm to provide Ben with an inheritance. Both partners have Wills and lasting powers of attorney in place.

The farm team consists of Peter and Jane, Emily the herd manager, Ali the general farm worker, a relief milker, and a calf rearer taken on for the spring. Emily has been with the partners for five years having come from an autumn calving herd where there was no further scope for progression. She has ambitions to farm in her own right and the partners support this, but would also like her to be around when Lucy comes home. Last year Emily was given some heifer calves with the idea that either she will have them to take with her to a contract farming opportunity, or she will hire them back to the farm as milking cows. Ali is from inner city Leicester and came across the job by chance, attracted by the opportunity to work outdoors. Ali has been on the farm for two years and now completes a variety of jobs across the farm but is particularly interested in cow health. Peter and Jane have paid for them to attend various courses and increased their salary when they asked to take on foot trimming and AI in house.

Heifers are outwintered on root crops which are rotated around the farm as part of the re-seeding policy, with any that haven't met target weights kept apart and given supplementary feed. Peter is very interested in grassland management and takes responsibility for selecting seed varieties, making decisions on re-seeding, and measuring and allocating grass through

the summer. As he and Jane start to think about doing less on farm he is involving Emily in the process with the aim of her taking it over.

Five years ago an opportunity came up to buy a block of adjoining land. A loan was taken out to do so; the partners have a good relationship with their bank manager stemming from their previous experience. When this was done Peter and Jane carried out a full business appraisal with their consultant; based on the stocking rate and dry matter requirements it was decided that purchasing the new land meant that they could give up a block of expensive rented land. Some members of the decision-making group thought they should keep the rented land and increase herd size, but Peter and Jane felt that their business worked well with 300 cows and they didn't want to put up additional sheds and change the parlour at this stage of their career.

Peter and Jane do their own monthly financial monitoring and dairy costings. They meet with their consultant twice a year to sense check their budget, check progress mid-year and review the previous year. Beyond this, they feel confident to manage the business themselves. As part of their discussion group they meet monthly and carry out annual financial benchmarking. The group was established in 2005 and Peter and Jane are proud to be part of the group. By now it is also an important part of their social life. Jane is one of the organisers.

Emily attends a herd manager's discussion group; they cover similar financial benchmarking measures as the other group but this one is made up of young farmers and progressive managers. Peter and Jane like that she mixes with her peers and that they still attend their group. Recently the levy board set up a technical discussion group which is attended by a mixture of farm owners, managers, and staff. Ali has been signed up to attend and enjoys time off farm to upskill. Jane will attend herself if she thinks the topic is interesting and thinks it is a good opportunity to share their experiences with those starting out in the industry.

The farm team has a short weekly meeting to plan the days ahead. Emily and Ali have an annual appraisal and the partners take on board their feedback. When the calving starts, the whole team sits down for a meal and go through protocols for the busy time ahead. At the end of calving the team has a barbecue or meal out to celebrate.

This year a relief milker left the business. He used to work through the breeding period to allow Jane and Emily to draft cows out for serving. When this happened, instead of simply replacing the workforce like for like, the partners invested in heat detection collars, budgeting that the saving in labour would allow for the expenditure. As their submission rates were

already >90% in the first three weeks of breeding it wasn't felt that technology would improve fertility.

Milk is sold on a solids contract and the business has focused on breeding cows that maximise the milk price available. There are strict protocols in place around hygiene and udder management to ensure that SCC and bactoscan bonuses are achieved. Peter and Jane attend supplier meetings and make sure that they are meeting the buyer's requirements, but otherwise don't spend much time thinking about milk price or their contract; they have built a resilient and low cost system that isn't reliant on a high milk price. Similarly they decided in 2011 that they needed to be able to farm without subsidies, and followed an aspirational member of the discussion group in investing their BPS off-farm.

In recent years their use of sexed semen has increased and they now keep individual cow records to target its use to good cows. As a result they have fewer bull calves born on farm. They have been in and out of TB restrictions and, when the situation was bad, put a plan in place to breed sufficient heifer replacements to allow for TB losses as well as natural herd replacement. Now that they are clear they are careful about biosecurity. Beef calves are sold at a few weeks old to a local buyer; they took on board his feedback on breed preference and now use sires that show good carcass traits as well as being easy calving. Any dairy bull calves born are given away to a local young calf rearer who is building his business. All in all, the business breaks even on surplus calves as they are treated well on farm and managed the same as the heifers but struggle on sales price as they are from crossbred cows. However, the partners have accepted this as a cost of milk production and know that this is probably better than going to the work and probable loss of rearing them.

The farm has a small number of simple but well-maintained farm machines with all major field work contracted out. This keeps things simple and allows all team members a good work/life balance. Peter and Jane always enjoy the fact that spring calving gives them time with their family over Christmas and are now seeing their team benefit from that same structured year.

High Performing Farm Summary

- Make sure your business and life plans are aligned
- Have a long term business plan
- Maximise use of the grassland and forage
- Know your farming figures, KPIs and manage them carefully.
- Build the farm team, partners, staff and advisors. Value your staff.

4 CONCLUSIONS

4.1 TOP TRAITS OF HIGH PERFORMING FARMERS

This report has studied outstanding dairy farming businesses and what sets them apart from the rest. Common themes become evident as concluded below. Ranking them is difficult as their impacts vary from farm to farm according to farming systems, the farmer's personality and attitude, current levels of farm management, staffing and cost control. However, for a general perspective of importance overall, the following order is identified:

1. **Keep a ruthless focus on costs** – This is the strongest message of this report, and it comes out clearly in several areas of the paper, both in aspects of the research as well as the case studies. We continually must remind ourselves that milk is a commodity, meaning the price is set by the internationally traded market, and margins are therefore usually tight. Remaining profitable in this situation means removing costs when possible and retaining output at high levels.

Top of the Hill farm is managing costs whilst maintaining expenditure that is keeping cows healthy and productive. This includes staff improvement, grass management genetic improvements and so on. Bleak Farm is doing none of this. Sensible contracting keeps costs down and allows farmers to concentrate on other areas of the farm. Ideas on how to cut costs are almost endless, make your own list. Refer to Appendix with the 50 ideas?

2. **Stocking rate** – More farming allows greater output. Getting the optimum stocking rate to maximise the milk from forage forces better use of land, a key resource on any dairy farm. It also diverts from simply pumping more expensive concentrate feed into cows which is an expensive way to raise output and not always successful, especially at the marginal level. The statistical research is clear here, concentrate on improving the productivity of land and the quality of the grass and forage produced. This is the cheapest way to produce milk, something that Top of the Hill farm is excelling at, but Bleak Farm is failing to do.
3. **Concentrate on what you are good at.** This is dairy farming. Both the case studies and the statistical research tells clear stories of how taking on a secondary enterprise such as beef rearing can distract the management, steal resources from the dairy and furthermore, be fundamentally less profitable than the dairy unit. There are few farming systems as profitable as a well run dairy unit.

4. **Know what the market requires.** Keeping milk clean is an obvious thing to ensure is maintained at all times. Working towards producing a milk with the constituents and seasonality that your processor is wanting to pay for, takes a little longer but is worth working towards. The statistical analysis claimed top performers are achieving 1.7p/l more than the lower producers. For Top of the Hill farm, that would be equivalent to approaching £40,000 per year alone.

5. **Know what you want to achieve** – Sit down. Speak with business partners and family members. Discuss what each wants to achieve (financial and non-financial). Make sure your aspirations are aligned. If you don't have this discussion, you will not know for sure. Write them down, pin them up, discuss them regularly. Share them with your business advisor. Turn your aspirations into budgets and business plans. Without a goal or ambition, you will not know if you have achieved what you are working towards. Work out a plan how to achieve your mutual goals.

Compile annual budgets to show where the year is planned to go. You can identify what is going well and what not so well helping you to adjust things if necessary. Ideas can be tested using this tool. Think through contingencies by developing a risk plan. Quantify risk. Entrepreneurs don't take higher risks than others, they just understand them better so know what they can do safely. Others guess and are sometimes wrong so make less progress or don't act in case they are wrong, guaranteeing no progress. Use these schedules regularly and frequently.

6. **Finally, detail is critical** – there are so many decisions to make daily, seasonally and over the years with dairy farming. Each might make a substantial difference to the success or not of the business. You cannot know every corner of your business in detail, but if you have the figures available, you will soon spot which areas are performing well or less so and be able to put measures in place to protect or change them. Know what the key performance indicators (KPIs) are for your farm, and monitor them regularly.

A change in the market conditions might make you more (or less) money one year, but it will not necessarily change your performance quartile as a rising tide lifts all boats. To achieve that aspiration, requires change. This is more difficult than any technical or management point considered in this entire study as it involves bravery and self-belief as well as a culture change. Nobody should do the same thing and expect different results. Yet people regret inactivity or indecisiveness more than regret doing something.

Ultimately, success is about achieving what you aspire to achieve. So have aspirations. These might not be solely financial which have been considered here, but to achieve most things with a farm, financial sustainability is a necessity.

5 APPENDIX 1 ~ 50 WAYS TO BE OUTSTANDING

The study considered management practices, rather than technical actions to physically *do*, that makes a difference. Most single actions are not picked up in academic publications or FBS analysis. Every farm will have different things to improve that make the biggest difference but here is a list of 50 suggested things to improve or questions to challenge a dairy farm with.

They are not in any order as their importance will vary according to each farm:

1. Have good financial discipline stemming from accurate costings, robust budgeting, and financial monitoring. Forward projections should be based on past performance and an understanding of the market, combined with setting realistic goals and implementing plans to achieve them.
2. Be part of a discussion group that meets regularly to cover business and technical aspects of farm management. Through annual financial benchmarking and open-minded discussions farms learn from other top performers and strive for improvement.
3. Invest in farm staff and their skills in people management. Make the farm a great place to work. Top performing farmers train and upskill staff even if this leads to them progressing to other opportunities elsewhere.
4. Routinely soil sample and correct pH levels through liming. Make best use of manure and slurry to correct low P and K indices and do not waste money on unnecessary compound fertiliser.
5. Focus on good quality grass as the basis of cow nutrition, maximising milk from forage. During the growing season measure and allocate grass, and grow and make best quality silage to manage the housed period.
6. Have a re-seeding policy to ensure that the farm has good quality leys of a grass variety that works for the farm and for the main purpose of the field/paddock.
7. Grazing infrastructure is set up to allow for an extended and well-managed grazing season; tracks, entry and exit gateways, enough water troughs, good fencing, fenced kept clear of overgrowth, charge on electric fences always at 6V.
8. Deal early with succession planning, have a Will and a lasting power of attorney in place, and make sure that non-farming siblings/children are catered for fairly (if not necessarily equally). Where necessary, use an external facilitator so that all family members feel heard and respected.
9. Be problem solvers and positive about overcoming farming challenges.

10. Do not let TB breakdowns derail the business plan. Be realistic about your chances of getting clear based on the local area and farm history and have a clear strategy of how to maintain cow numbers. Do not keep all beef calves in the hope of going clear.
11. Diversifications are accurately and clearly costed. Enterprises processing milk or finishing beef animals should be profitable after accounting for purchasing milk/calves from the dairy enterprise, their share of variable and overhead costs, and paid and unpaid labour.
12. Sales reps are not allowed on the farm without an appointment.
13. Any capital spends are fully appraised by looking at the return on the investment. The cost of depreciation and upkeep is included in this appraisal.
14. Surround yourselves with positive farmers who are solutions- based and proactive.
15. Have a clean, tidy, and well-organised workplace. This helps with workflow and efficiency, increases staff retention, and gives a positive representation of the industry to visitors and those passing the farm.
16. Recognise the milk buyer as a customer and ensure that the milk produced meets the contract specifications to maximise the price achieved. Apart from meeting these standards milk price is rarely discussed as the focus is on farm costs that can be controlled.
17. Take Health and Safety seriously; put policies in place which are regularly reviewed. New staff are put through an induction process and given training, which is frequently refreshed and updated.
18. The business has regular short but productive team meetings and staff know what their tasks and responsibilities are for the week ahead.
19. Staff are given regular routine appraisals in time set aside for the purpose. The farm managers take on feedback from staff and use it make themselves better people managers and the farm a better place to work.
20. There are protocols in place to ensure gold standard calf management, with everyone involved in their upkeep aware. Biosecurity is high and there is an emphasis on cleanliness, colostrum quality and quantity, and having suitable living conditions.
21. Heifers are regularly weighed and their growth measured. There are targets set for specific ages and any heifers not achieving those targets are managed to increase daily liveweight gains.
22. Lameness is managed through routine mobility scoring, early treatment of lame cows, and a robust approach to foot-bathing and blitz treating digital dermatitis. Cow

- tracks and housing infrastructure are managed for cow comfort and standing times are minimised.
23. Consider contracting out field work, allowing the business to own minimal machinery and reduce the associated costs. This also allows the team to focus on cow and grass management and not be distracted by tractor work.
 24. Block calvers have a strict calving block of 12 weeks or shorter. All year round calvers aspire for a 365 day calving interval and take steps to achieve it.
 25. Labour on farm is appraised and benchmarked to ensure that there are sufficient people on farm to meet high technical standards but the business is not over-staffed. Unpaid labour is properly accounted for in management accounts.
 26. Youngstock are grazed on well-managed grassland with quality swards. Rotational grazing is practiced, grass is allocated, and there is a plan in place for responsible parasite management such as faecal worm egg counting.
 27. There is strict biosecurity and biocontainment; regularly refreshed foot dips for visitors, relief staff have clothing specific to the farm, and care is taken to clean equipment and clothes between groups of animals.
 28. Rotationally graze paddocks with grass accurately allocated.
 29. Measure incidence and prevalence of key health issues and be proactive about controlling them through diagnosis of issues (such as using the mastitis patten tool or scour testing kits) and reducing risk factors through better management.
 30. Have a robust strategy for the management of beef and bull calves with them receiving comparable treatment to heifer calves. Sires are chosen to maximise returns from these calves without compromising the dairy cow or the system.
 31. Monitor prices of global commodities and use that information to budget, manage expenditure, and be aware of how their business may be affected.
 32. Keep good farm records and be diligent about tags and compliance to avoid issues with farm assurance and cross-compliance.
 33. View technology as something that should either be cost saving or output increasing. It is only purchased after an investment appraisal and not bought to fix a problem that isn't relevant to the farm.
 34. Focus on the costs that are within the control of the business; monitor them, challenge them, and do not get caught up in spending energy worrying about those that are not.

35. Remember that litres are vanity, but profit is sanity. Focus on retaining a target proportion of turnover as profit rather than on increasing turnover and spending more.
36. Know your cash needs and build a bottom-up budget that meets them.
37. Have staff on fair rotas which give them adequate time off and a variety of tasks, with time for training and development.
38. Compare prices before making purchases to ensure that costs are controlled as much as possible.
39. The farm is well-maintained with gates that are properly hung, potholes that are filled in, and a grease gun that is used to make working easier and more efficient.
40. Incorporate clover into grass leys to improve grass quality and reduce reliance on bagged nitrogen through benefitting from the legume's N fixing properties. The percentage of clover in the sward is taken into account to adjust fertiliser applications.
41. Be open-minded and curious and take time to attend industry events based around ideas and knowledge exchange rather than just those focused on selling equipment.
42. Make financial forecasts that allow prediction of future tax liabilities, and in a high profit year put cash aside for the bill or make sensible investments that will reduce costs on farm. Do not buy a new tractor or spend frivolously to reduce tax liabilities.
43. Have a positive relationship with your bank manager based on good communication, honesty, and respect.
44. Appraise the machinery used on farm and sell any surplus machines e.g. where there are two tractors but one could do the jobs needed. When enterprises change, blocks of land are lost, or infrastructure is streamlined re-appraise what machines and implements are necessary.
45. Be open-minded about the contribution environmental schemes can make to the bottom line. Do the sums like it is another potential enterprise to build into the business. There will probably be some easy gains within them.
46. Do an analysis that examines your farm's carbon footprint. It is already quite a big issue and will get bigger so is worth being prepared.
47. Have protocols in place for tasks such as calf rearing and drying off. All team members are given training in best practice. Protocols are refreshed as industry standards evolve and copies are easily found on farm.

48. Research new ideas and concepts and learn from others. With knowledge and the learned experience of others take calculated risks.
49. Be open-minded about transferrable skills and recruit entry-level staff based on potential rather than fixating on previous skills. This may mean having staff members from non-farming backgrounds who bring fresh ideas and outlooks to the farm.
50. Any data collected on farm is made use of to monitor trends and take action on forage, animal health, or milk quality. Time is not spent gathering information for no purpose.
51. Go the extra mile and do a little more than is strictly necessary.

BIBLIOGRAPHY

- 1 Redman *et al*, 2018, the characteristics of high performing farms in the UK, Published by AHDB
<https://ahdb.org.uk/knowledge-library/preparing-for-change-the-characteristics-of-top-performing-farms>
- 2 Jones, Nicolas. (July 2020), Characteristics of High Performing Dairy Farms in England. (Published by Defra).
- 3 Redman, Graham. et al., 2018. The characteristics of high performing farms in the UK, Published: AHDB.
- 4 [National Minimum Wage and National Living Wage rates - GOV.UK \(www.gov.uk\)](http://www.gov.uk)
- 5 Keller, Gary & Papasan, Jay. (2012) *The One Thing*, Published: Keller Williams