

# **THE AYRSHIRE DAIRY**

**“From Moo to You”**

## **BUSINESS PLAN**

TO ESTABLISH AND DEVELOP A FARM VENDING MACHINE

AT

NEWTONHEAD FARM, IRVINE ROAD,  
KILMAURS, NORTH AYRSHIRE, KA3 2NX.

# Table of Contents

---

<b>Executive Summary</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>5</b>
<b>Business Description</b> .....	<b>6</b>
Background Information.....	6
Business Location.....	6
Products and Services .....	7
Mission and Values .....	7
<b>Market Analysis</b> .....	<b>8</b>
Location .....	8
Pricing.....	8
Competitor Analysis.....	9
<b>Management and Organisation</b> .....	<b>11</b>
Management.....	11
Organisation.....	11
Training.....	11
<b>Operating Plan</b> .....	<b>12</b>
Overview.....	12
Building Proposal.....	12
Equipment Required .....	12
Main Procedures.....	13
Regulations .....	14
Consumer Experience.....	14
<b>Marketing Plan</b> .....	<b>16</b>
Objectives .....	16
People.....	16

<b>Financial Plan</b> .....	<b>18</b>
General Points .....	18
Setup Costs.....	19
Running Costs.....	20
Projections .....	22
Profit and Loss Projections .....	23

## Executive Summary

---

Newtonhead Farm is an active dairy farm, located in Kilmaurs, North Ayrshire. It is an active dairy farm currently selling milk to an external dairy company, Yew Tree Dairy. Whilst this strong relationship will continue, the opportunity to supply milk produce directly to the consumer is a new direction which we are very interested in pursuing. We are planning to set up a new, separate business named 'The Ayrshire Dairy', to provide this service to the public directly from Newtonhead Farm.

Our aim is to provide milk and milkshakes to the local community, directly from vending machines on-site on Newtonhead Farm in a purpose-built building with its own car park. Customers will be welcome to purchase glass bottles from one vending machine, which they can use to self-serve themselves milk and milkshakes from another machine. Through the use of reusable glass bottles, we are hoping to encourage customers to be more environmentally friendly rather than the popular one-use plastic milk bottles. The purpose-build shed will be in its own separate fenced area, but will be located in a picturesque field surrounded by animals including alpacas, cows, sheep, goats and chickens for the public to enjoy viewing.

Newtonhead Farm is in an ideal location, with excellent road access to several nearby towns, villages and also to Glasgow. There are also no other similar businesses supplying on-farm vending machines in mainland North Ayrshire, with the closest potential competitor located at least 19 miles away. We have a clear, defined market strategy, and plan to utilise social media in particular to advertise the business to the local community. We already have the finances to fund the initial set up of the business, and we have calculated that the business should be profitable by its second year of trading.

In this document we will explain why 'The Ayrshire Dairy' will benefit not only the farm in improving its financial potential, but especially the local community in general.

## Introduction

---

This report has been prepared by a small team keen on providing a key product for the local community. These persons are planning on setting up this business, with a proposed name of 'The Ayrshire Dairy'. Having undertaken extensive research, we believe that 'The Ayrshire Dairy' is a promising business opportunity, with the opportunity to support and integrate into the local community.

In this report, we hope to outline the key areas of our business proposal, demonstrating how it will become a successful and exciting endeavour.

Potential directors (subject to confirmation):

- David Forsythe
- Kathryn Pollard
- Christine Pollard
- Brian Pollard

## Business Description

---

### Background information

Since the late 1990s, milk purchasing has changed markedly away from the classic milkman, delivering milk in one-pint glass bottles directly to households. Milk subsequently became more commonly purchased from a supermarket or local vendor instead. Potential explanations for this change include access to household refrigerators and increased private car usage.

However, the market for milk supplied through on-farm vending machines rose significantly during the period of the pandemic, where consumers moved to shop more locally. Since restrictions were lifted, this demand has continued and some local existing businesses have added in additional vending machines. This demand for on-farm vending machines across the UK also appears to reflect a growing consumer interest in sourcing products which are produced locally. People have never been so interested in quality local food and how it is produced, in freshness and in traceability. The Farmers Weekly website in September 2022 stated that there were approximately 400 milk vending machines throughout the UK in 2022.

### Business Location

Newtonhead Farm is a working dairy farm located in Kilmaurs, North Ayrshire. It currently milks approximately one hundred dairy cows, selling milk to an external dairy company. There are a number of other animals on the farm too, including sheep, alpacas and goats. The main owner of the Newtonhead Farm business is one of the proposed directors of 'The Ayrshire Dairy'. 'The Ayrshire Dairy' will be run as a new and separate business to Newtonhead Farm.

There is currently no known independent farm shop selling milk directly to the public within mainland North Ayrshire. Therefore, the establishment of such a facility will provide a new service to the local residents. This will help support a growing demand for high quality, locally and ethically produced food. It is proposed therefore to establish an on-site vending machine at Newtonhead Farm, in North Ayrshire, to cater for this need.

## **Products and Services**

Market analysis has highlighted a lack of on-site milk vending machines in mainland North Ayrshire, therefore this is a service which we aim to provide.

The plans are for there to be two vending machines for customer use; one for dispensing both non-homogenised, pasteurised whole milk and milkshakes, and another for selling and dispensing reusable glass milk bottles.

## **Mission and Values**

Our mission is to deliver high quality pasteurised, non-homogenised milk and milkshakes from a vending machine to the local public at a competitive and fair price. We aim to provide a source of sustainable milk, through using reusable milk bottles.

‘The Ayrshire Dairy’ are also keen to build up a rapport and strong relationship with the local community. We are excited to welcome consumers to the area, encouraging an understanding of where milk is produced from. There will also be the opportunity to spend time adjacent to fields of farm animals, and we hope this may also improve customers’ understanding of farming and generally share our love of the countryside.

## Market Analysis

---

### Location

Location is key to attracting customers and being close to a significant population density is important. Accessibility and road infrastructure is also important to ensure customers can easily reach a business.

Newtonhead Farm is located approximately two miles West of Kilmaurs, four miles North-West of Kilmarnock, four miles South-West of Stewarton, six miles North-East of Irvine and fifteen miles South-West of the suburbs of Glasgow.

There is excellent road accessibility to Newtonhead Farm; the B769 and A735 run nearby, which are major commuter routes from Glasgow to the area. The A77, A71 and A78 are also closely located to the farm, which will make the business readily accessible by a large population of commuters which may not live locally.

There is also a large population of local residents which will have nearby access to 'The Ayrshire Dairy'. The B769 extends towards Irvine, which is a popular residential area and has an industrial estate of major business outlets which may be useful for business relationships in the future. A new residential estate is also being built in Perceton, which is also located on the B769 and is located approximately two miles from Newtonhead Farm. 'The Ayrshire Dairy' will therefore be ideally placed to secure business from a large residential area of North Ayrshire and its surroundings, as well as passing commuter traffic.

### Pricing

Research has been undertaken into the pricing of milk from nearby on-farm vending machines and from equivalent milk in local supermarkets. Consideration will also be taken into customers possibly travelling a distance to get to 'The Ayrshire Dairy'. We will pitch the



price of our milk appropriately based on this research to ensure it is of a competitive price for a high-quality milk and milkshakes directly from the source.

## Competitor Analysis

It is important to consider local competitors which may affect the success of 'The Ayrshire Dairy'. Market research has been performed into other on-farm vending machines and also farm shops within approximately twenty miles:

- Morton's Milk – this farm shop in Ochiltree, Cumnock is located approximately 19 miles from Newtonhead Farm and sells milk as well as other produce. This is not considered a competitor due to their distance from 'The Ayrshire Dairy'.
- The Coo Shed – this is a farm shop which has on-site milk vending machines as well as a café. Due to its distance of approximately 20 miles from Newtonhead Farm, it is not considered competition to 'The Ayrshire Dairy'.
- Mossgiel Organic Farm – this is located approximately 15 miles from Newtonhead Farm. It is a milk vendor but doesn't appear to have an on-site vending machine for public use. Also considering its distance from Newtonhead Farm, it is not considered a direct competitor.
- Langholm farm shop and tearoom – this farm shop is located approximately 12 miles from Newtonhead Farm. This is not considered a competitor as it sells farm produce but not milk from a vending machine.
- Auchengree Farm Shop – this farm shop is located approximately 10 miles away from Newtonhead Farm. It is also not considered a direct competitor as it sells farm produce but not milk from a vending machine.

Considering this competitor analysis, there is no farm which is producing and supplying milk through an on-farm vending machine in the immediate area which would be considered a competitor to 'The Ayrshire Dairy'. This new business is therefore providing a product to the local residents and area which isn't currently available.

## Management and Organisation

---

### Management

'The Ayrshire Dairy' is planning to have one FTE worker involved in the daily management and operation of the business, including advertising and social media. This will be carried out by one or more of the directors of the company and there will be frequent communication between directors, in particular between Newtonhead Farm business and 'The Ayrshire Dairy'. All of these persons are more than capable of running the business, both as management and in general day-to-day activities. Two of these persons already have extensive experience of working with the public.

### Organisation

Every member of staff/director will have a specific role in the company, playing to their strengths, but all will have to ability to safely and effectively run the vending machine. Appropriate training will be undertaken by every member as required.

Uniforms will be worn by all members to advertise 'The Ayrshire Dairy', identify those working at the business, ensure hygiene and maintain a professional look.

### Training

All staff members will undertake training in and obtain certification in food hygiene. Any further training will be undertaken by specific or all staff members as required.

## Operating Plan

---

### Overview

Newtonhead Farm is in a very pleasant location with a short driveway leading off Irvine Road. It is proposed to establish the business in a new purpose-built facility in a field between the farm itself and Newtonhead Bungalow, a private residence owned by one of the proposed directors. The new facility would be adjacent to farmland, which usually contains sheep, cattle, alpacas, chickens, ducks, and goats. We are hoping this will be of interest for visitors, customers and their children.

### Building proposal

It is proposed to construct a purpose-built building as shown in the plans created by an external architect. This will be of a similar design and colour to the surrounding farm buildings, so as to fit in with the surroundings.

Internally, the building will have two areas, one for milk processing and storage, and the other for the vending machines and customer access. Customers will have no access to the milk processing and cold storage area. Access to this area with milk from the dairy will be through a shutter door at the back of the building, away from customer viewing.

The facility will have disabled parking adjacent to the building housing the vending machines with a level access point which is readily wheelchair accessible. Thus, the entire facility will be disabled-friendly and fully accessible to all.

### Equipment required

The following items will require purchasing:

- One Daisy Vending Machine, which will hold approximately 200L of milk in two separate tanks of 100L

- One glass bottle vending machine for consumers to purchase reusable glass milk bottles
- Pasteuriser, including a transportation tank and its allied cleaning and cooling equipment
- Milkshake syrups for use in the Daisy Machine
- Glass bottles, with our logo and information on, to refill the vending machine as required

## **Main procedures**

A batch of milk from Newtonhead Farm parlour will be pasteurised daily, or more frequently if needed. The transportation tank will be filled from the parlour at Newtonhead Farm directly and transported to the milk processing and cold storage area using a forklift. This tank will then be connected to the pasteuriser according to manufacturing instructions. After pasteurisation, milk is then stored in a chilled tank until used. The pasteuriser and associated equipment self-cleans via an automated system. Pasteurised milk will be transferred to the Daisy Machine tanks, which will be inserted into the machine for use. The vending machine will be refilled as required. This will only be performed by trained staff members. A HACCP plan will be created and followed to ensure high levels of food safety. Stringent record keeping will be performed by staff members as needed. This will involve both paper and online records as required.

Glass bottles can be purchased from the bottle vending machine, although it is expected that returning customers refill their bottles most of the time. Customers will place a glass bottle into the dispensing area and select their product from the Daisy Machine itself. Cash or card will be accepted by the machine. The Daisy Machine self-cleans after each dispensing. Cleaning of the whole machine will be performed as per manufacturer instructions.

The opening hours of the building are estimated to be 7am to 8pm and customers are welcome to visit any time during these hours. Outside of these hours, the building and gate

into the car park will both be locked for security purposes and to allow any cleaning as needed. External flood lights will ensure good visibility in the car park after daylight.

## **Regulations**

Testing of the milk will be performed and recorded as advised by Food Standards Agency standards. We expect that local environmental health officers will advise further on specific legal requirements. They will also need to attend on a regular basis to perform tests as per local regulations. A Hazard Analysis and Critical Control Plan (HACCP) will be followed and any licensing or legal requirements will be obtained as required.

## **Consumer Experience**

'The Ayrshire Dairy' is aiming to provide an area for customers to purchase their own high quality, pasteurised milk and milkshakes directly from the source. The Daisy Machine will allow customers to purchase reusable glass bottles and fill them up safely with milk themselves. We are hoping that reusing glass bottles will have a positive environmental impact in reducing the amount of plastic milk bottles purchased, and also encouraging customers to consider reusable items. Customers will have the choice of plain milk, or a selection from six different milkshake flavours depending on personal choice. The building will be clean and high hygiene standards will be maintained at all times to ensure a good experience for customers. The building will be checked at regular intervals by staff members to ensure these standards are met.

'The Ayrshire Dairy' is also keen to encourage customers to spend time in the countryside and learn about the variety of animals we have at Newtonhead Farm. The vending machine building and car park will be located in a field with a number of different farm animals present for viewing. Safety is paramount for both customers and the animals, and there will be a double fence between the car park and livestock to ensure no direct contact. Signs will be present to educate those visitors on the animals present, and also to discourage feeding

or other potentially harmful practices to the livestock. Hand sanitiser will also be made available within the vending machine building for customers to use.

## Marketing Plan

---

### Objectives

Marketing will be a vital step in the success of this new business and our primary objective is to have a clear brand identity, demonstrating our product to the public.

A website will be developed by one of the team who already has experience developing websites for other organisations. Social media will be utilised, initially using Facebook and Instagram, to advertise the business and encourage locals to visit. The team are very keen to share their farming experience with the public, therefore regular updates on the livestock will be provided through social media to increase consumer awareness of the livestock, for example, during lambing.

The team are also very keen to promote and encourage environmentally friendly practice, therefore advertising and marketing will be present on the reusable glass bottles which will be able to be purchased directly from the building.

The farm is in a prime location, so advertising will also include a 'Fresh Milk' notice at the end of the farm driveway and may also be considered in fields adjacent to Irvine Road. This will help to both advertise and also provide directions for customers to the farm. Planning permission will be applied for if required for this.

Local leafletting may also be used, however, the team are very conscious about any negative environmental impact this may have. An article in a local newspaper will also be considered and explored.

### People

The staff members will also be key in marketing this product from word of mouth through to branded clothing. This clothing will be important to both advertise the business and also to maintain a professional appearance. We are very aware of customer recommendation being



a key source of marketing, and therefore maintaining a positive experience for customers and maintaining a professional business and sought after product will be important to ensure customer satisfaction.

## Financial Plan

---

### General points

Milk vending machines are successful and profitable if they are well run and in the right location. We have the capability, personnel, and drive to set up this facility and to run it well. The location is ideal with no nearby similar facility or competition.

'The Ayrshire Dairy' will be run as a separate new business and not as a part of Newtonhead Farm. 'The Ayrshire Dairy' will buy its milk and may also rent the land on which it is situated from Newtonhead Farm. All the services (electricity, water, etc) will be separate from Newtonhead Farm.

A card machine which accepts credit and debit cards will be installed with the machines. Payment for the milk and bottles will be possible using either cash or card.

Funding has already been secured by one of the applicants for the entire setup costs and this is available with immediate effect.

'The Ayrshire Dairy' will be set up as a limited company and VAT registration will be required. All the following figures exclude VAT where applicable.

## Setup costs

The following are considerations and costs likely involved in setting up this business. The specific costs have been estimated based on research or provided directly by companies.

### Accessibility

A drive is already present, although it may need widening slightly (moving grass verges beside the access road) and the surface dressed. No or limited costs will be associated with this as it will be performed directly by Newtonhead Farm

### Car park

The ground will need to be levelled initially, then surfaced with tarmac, or equivalent, over the disabled parking spaces located next to the building to ensure it is accessible and level for walking and wheelchair access. Other areas of the car park will be made of compacted tar-planings which are already in possession. Cost estimated at: £3000.

### Building

Foundations will need to be excavated and farm machinery is already accessible to accomplish this. A concrete base will be needed which is estimated at £2500.

The building will be a box profile steel cladding unit, details of which are provided in the attached architect drawings. Its estimated cost including erection is £13,500.

### Fencing

A double fence will be needed to separate the facility from livestock. Part of this is already present but additional fencing will be provided and erected by Newtonhead farm and there will be no direct cost to 'The Ayrshire Dairy'.

### Services

An electricity supply will be needed from nearby power lines through a new meter. An estimate of this being performed is £15,000. Water and drainage connections will also be required and an estimate of this is £1500 for materials.

### Internal equipment

Pasteuriser, including its allied cleaning and cooling equipment including installation is estimated at £30,950 plus VAT.

Milk vending machine including installation is estimated at £23,950 plus VAT.

Bottle vending machine including installation is estimated at £6350 plus VAT.

### Security

Security lights and cameras already exist and will be relocated as needed. Thus, there is no cost associated with these.

### Legal and Official costs

Registration of the limited company with Companies House. This currently costs £12 to perform.

Architect fees for planning and designing the building and area is costing £850 and for completing the building warrant is £1275.

The cost of council planning fees for the surface area of the proposed building is at £1200.

The council building warrant fees are predicted to be £656.

### **Running costs**

The following are considerations and costs likely involved in running this business. The specific costs have been estimated based on research or provided by companies.

#### Milk and bottles

Milk will be sourced directly from Newtonhead Farm. 'The Ayrshire Dairy' will purchase milk from the farm at a cost of 70 pence per litre.

Reusable, empty sterile bottles will be purchased at approximately 80 pence per bottle excluding VAT and delivery charge.

Milkshake syrups will be purchased at a price of £9.50 per 5L tub. These will be purchased from the same company as the vending machine.

### Utilities

The following electricity costs are approximations provided by the Daisy Vending company:

- Glass bottle vending machine is estimated at £1/day
- Daisy milk machine is estimated at £2/day
- 300L pasteuriser on single phase power estimates at 15 pence for each litre of milk

The following water costs are approximations provided by the Daisy Vending company:

- Daisy milk machine uses approximately 200ml for each litre dispensed. Considering the water rate of £2.40 for the first 20 cubic metres, this equals to £0.00048 per litre of milk dispensed
- 300L pasteuriser is estimated at 10 pence for each litre of milk

Broadband internet will be required for services including credit/debit card connection, security system, etc. An estimate of this is £80/month.

### Insurance

We will have insurance to cover public and products liability, employers' liability and contents. An estimate for this is £408.36 per year.

### Administration

An accountant will be utilised, which is estimated at a cost of £3000 per year.

### Salary

We are expecting to have one 1 FTE salary to pay each year. The salary for this has not been finalised yet among the directors, however, it is currently estimated to be paid at the Real Living Wage, which is currently £12.00/hour, equating to £24,960 a year. It is estimated that this will increase by 5% a year.

## Projections

Milk and milkshake prices have been chosen based on our knowledge of the price of milk from vending machines charged by other similar farm shops in the area. We are not trying to undercut them but to be in alignment with them.

The new vending facility will purchase milk directly from Newtonhead farm at a cost currently priced at 70 pence per litre. Milk will be sold from the vending machine at £1.50 per litre, which therefore this makes a profit of 80p per litre of milk.

Milkshake syrups will be purchased at £9.50 per 5L. Dilution of milkshake syrup will follow manufacturer instructions and will be 1 part syrup to 9 parts milk, equating to 100ml syrup in 900ml milk. A litre milkshake will therefore cost approximately 19 pence for the syrup component and 63 pence for purchasing the milk from the farm. Considering that a milkshake is charged at £2.00 a litre, this leads to a profit of £1.18 per milkshake.

We are aware that the national UK average milk vending machine sells 80 litres a day. Considering that we have been informed that similar on-farm vending machines in the near area sell over 200 litres a day, we are projecting that we sell approximately 60 litres a day of product in the first year of business, followed by 80 litres a day in the second year and we are aiming for approximately 120 litres a day in subsequent years. We are estimating that approximately half of this will be milkshakes as we have been informed that milkshakes are equally popular in other similar on-farm vending machines. These sales equate to:

- First year @60L a day = £60 of milkshakes and £45 of milk = £105 income daily
- Second year @80L a day = £80 of milkshakes and £60 of milk = £120 income daily
- Fifth year @120L a day = £120 of milkshakes and £90 of milk = £210 income daily

New empty bottles cost approximately 80p each and will be sold from our machine at £2.00. We will thus make a profit of £1.20 on each empty bottle. We are predicting that we sell more bottles initially and hope that these will be reused and therefore sales of these will reduce as many customers will return with their own bottles. We are predicting that in the first year, 80% of milk or milkshake sales will include a purchase of a bottle. This we are

predicting to drop to 70% in the second year and then we are expecting 50% of sales to also include a bottle in the following years. These sales equate to:

- First year @80% of sales = 48 bottles sold daily = £96 a day income
- Second year @70% of sales = 56 bottles sold daily = £112 a day income
- Fifth year @50% of sales = 60 bottles sold daily = £120 a day income

## Profit and Loss Projections

The following table is made based on the projections above. We are aware that these are based on assumptions of how many new and existing customers will visit this business based on research of local similar businesses. We have not included setting up costs for the business as this funding has already been secured separately.

		End of Year 1 (£)	End of Year 2 (£)	End of Year 5 (£)
<b>Income</b>				
	<u>Goods sold</u>			
	Milk sold	16425.00	21900.00	32850.00
	Milkshakes sold	21900.00	29200.00	43800.00
	Glass bottles sold	35040.00	40880.00	43800.00
	<i>Gross profit</i>	<i>73365.00</i>	<i>91980.00</i>	<i>120450.00</i>
<b>Outgoings</b>				
	<u>Operating expenses</u>			
	Purchasing milk	15330.00	20440.00	30660.00
	Purchasing bottles	14016.00	16352.00	17520.00
	Milkshake syrup	2080.50	2774.00	4161.00
	Electricity usage	4380.00	5475.00	7665.00
	Water usage	2200.51	2934.02	4401.02
	Insurance	408.36	408.36	408.36
	Internet	960.00	960.00	960.00
	<u>Overheads</u>			
	Salary	24960.00	26208.00	30339.04
	Administration costs	3000.00	3000.00	3000.00
	Depreciation	6125.00	6125.00	6125.00
	<b><i>Profit before taxation</i></b>	<b><i>-95.37</i></b>	<b><i>7303.62</i></b>	<b><i>15210.58</i></b>