

## Fodder Budget

A fodder budget helps you to calculate the winter feed required for your livestock. In the fodder budget enter the number of livestock that will be housed over the winter period under different stock types. There are three parts to this fodder budget;

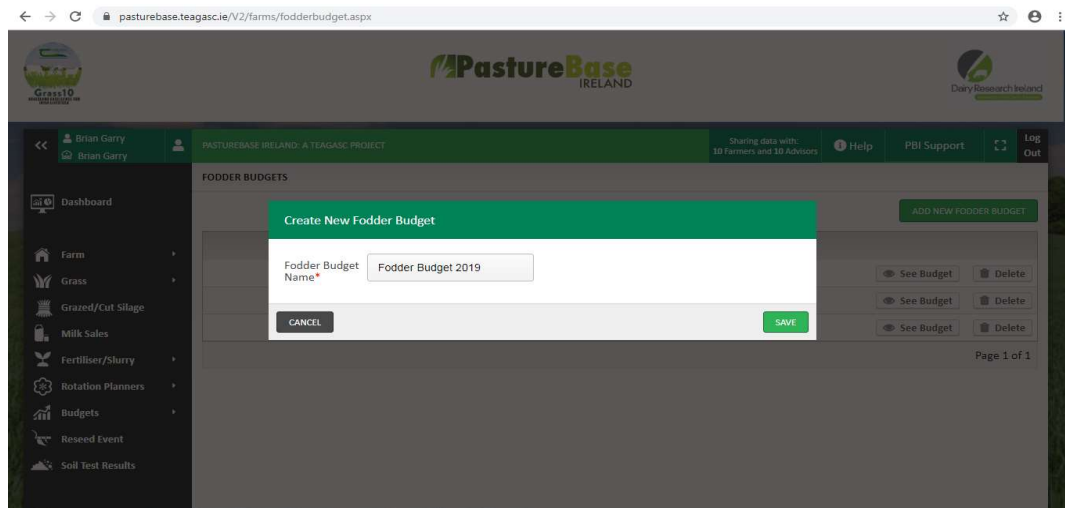
1. Calculating the livestock requirement for the winter
2. Calculating the quantity of fodder and meal available in the yard for the winter
3. Determining whether the farm is in a fodder surplus or deficit

## What is the difference between the Grass Budget and the Fodder Budget?

- A grass budget takes the grazing area into consideration while the fodder budget takes the whole farm into account.
- A grass budget is broken down into week intervals while a fodder budget is for one period, for example the 'winter period' (120 days).
- For a grass budget to be of value, grass covers need to be completed each week, for a fodder budget grass covers are not required.

## Getting Started

- The fodder budget is located in the 'Budgets' section- choose 'fodder budget'
- The next screen will give the option to add a new fodder budget clicking the green button 'add new fodder budget' on the top right hand side of the page
- There is also the option to view previous fodder budgets
- When a new fodder budget is selected the screen below will be presented
- Choose a suitable name and click on save



- The next screen gives the option to select and choose stock types to be used in the budget
- By clicking on the red X beside the names of the different stock types you will delete them from view so as to avoid having to view stock types which are not applicable.
- A confirmation pop up will ask you to confirm any stock types to be deleted

Budget Name:  Close Budget

EXPORT TO EXCEL EXPORT TO PDF

Livestock Details ADD LIVESTOCK TYPE PRINT UPDATE

STOCK	NO. OF DAYS	STOCK NO.	STOCK WT.	DMI %	TOTAL DMI - KG/DAY	MEAL FED KG/DAY	FORAGE INTAKE KG DM/DAY	TOTAL TONNES OF FORAGE DM REQUIRED	TOTAL TONNES OF MEAL REQUIRED
<input checked="" type="checkbox"/> Dairy Cows (Milking)	<input type="text"/>	<input type="text"/>	600	3.2	19.2	<input type="text" value="0"/>	19.2	0	0
<input checked="" type="checkbox"/> Dairy Cow (0-40 DIM)	<input type="text"/>	<input type="text"/>	600	2.7	16.2	<input type="text" value="0"/>	16.2	0	0
<input checked="" type="checkbox"/> Dairy Cows (Dry)	<input type="text"/>	<input type="text"/>	650	1.8	11.7	<input type="text" value="0"/>	11.7	0	0
<input checked="" type="checkbox"/> Dry suckler Cows	<input type="text"/>	<input type="text"/>	700	1.25	8.8	<input type="text" value="0"/>	8.8	0	0
<input checked="" type="checkbox"/> Calved suckler cow	<input type="text"/>	<input type="text"/>	650	1.7	11.1	<input type="text" value="0"/>	11.1	0	0
<input checked="" type="checkbox"/> In-calf Heifers	<input type="text"/>	<input type="text"/>	500	1.9	9.5	<input type="text" value="0"/>	9.5	0	0
<input checked="" type="checkbox"/> Weanlings / Yearlings	<input type="text"/>	<input type="text"/>	310	1.9	5.9	<input type="text" value="0"/>	5.9	0	0
<input checked="" type="checkbox"/> Stores 1-2	<input type="text"/>	<input type="text"/>	475	1.7	8.1	<input type="text" value="0"/>	8.1	0	0
<input checked="" type="checkbox"/> Finishing Steers	<input type="text"/>	<input type="text"/>	600	2	12	<input type="text" value="0"/>	12	0	0
<input checked="" type="checkbox"/> Finishing Heifers	<input type="text"/>	<input type="text"/>	490	1.9	9.3	<input type="text" value="0"/>	9.3	0	0
<input checked="" type="checkbox"/> Bulls	<input type="text"/>	<input type="text"/>	600	2.2	13.2	<input type="text" value="0"/>	13.2	0	0
<input checked="" type="checkbox"/> Ewes	<input type="text"/>	<input type="text"/>	80	2	1.6	<input type="text" value="0"/>	1.6	0	0
<b>Total Required</b>								<b>0</b>	<b>0</b>

Silage / Bales

- Any stock types which have been deleted can be added back in or deleted as necessary by either clicking the red X beside stock type name or by selecting the 'add livestock type' button at the top of the fodder budget sheet.

---

## Calculating the herd requirement

### Understanding the terms

- **Dairy Cows (Milking)** – dairy cows greater than 40 days in milk
- **Dairy Cow (0-40 DIM)** - dairy cows that are less than 40 days in milk. Their intake will increase each week after calving
- **Dairy Cow (Dry)** – dairy cows not in milk production
- **No of Days** – length of time in days where the livestock will be indoors on the diet entered. Include extra days for reserve
- **Stock No.** – average number of heads of livestock during the indoor period
- **Stock WT** – average live weight of the livestock during the indoor period. Prepopulated values will appear for each stock type but users can change this value to suit their stock type. Be careful not to underestimate liveweight as this could lead to underestimation of fodder requirements
- **DMI%** - Dry Matter Intake Percentage in accordance to the animal's weight e.g. 18 kg DM / 600 kg x 100 = 3% BW. Prepopulated values will appear for each stock type but users can change this value to suit their stock type and feeding level. Be careful not to underestimate intake as this could lead to underestimation of fodder requirements.

### Test Case

100 dairy cows and 25 in calf heifers and 25 weanlings along with a stock bull are going to be housed for the winter. The livestock are usually housed full time from mid-November. Cows are dried off together on 1st December. Cows are put out to grass as they calve from February. 85 cows and heifers will calve in February. Young stock are put to grass from 1st March.

### Calculations

100 dairy cows (milking) from 15/11 to 1/12 (15 days)

100 dairy cows (dry) from 01/12 to 01/02 (60 days)

55 dairy cows (dry) from 01/02 to 01/04 approximately (60 days)

In total I have 155 dairy cows (dry) for 60 days

25 in calf heifers 15/11 to 1/3 (110 days)

25 weanlings/yearling from 15/11 to 01/03 (110 days)

1 stock bull 15/11 to 15/03 (120 days)

See screen shot below containing values.

Livestock Details									
ADD LIVESTOCK TYPE									
STOCK	NO. OF DAYS	STOCK NO.	STOCK WT.	DMI %	TOTAL DMI - KG/DAY	MEAL FED KG/DAY	FORAGE INTAKE KG DM/DAY	TOTAL TONNES OF FORAGE DM REQUIRED	TOTAL TONNES OF MEAL REQUIRED
Dairy Cows (Milking)	15	100	600	3.2	19.2	4	16.5	24.75	6
✘ Dairy Cow (0-40 DIM)			600	2.7	16.2	3	14.2	0	0
Dairy Cows (Dry)	60	155	600	1.8	10.8	0	10.8	100.44	0
✘ Dry suckler Cows			700	1.25	8.8	0	8.8	0	0
✘ Calved suckler cow			650	1.7	11.1	0	11.1	0	0
In-calf Heifers	110	25	500	1.9	9.5	0	9.5	26.13	0
Weanlings / Yearlings	100	25	310	1.9	5.9	0	5.9	14.75	0
✘ Stores 1-2			475	1.7	8.1	0	8.1	0	0
✘ Finishing Steers			600	2	12	0	12	0	0
✘ Finishing Heifers			490	1.9	9.3	0	9.3	0	0
Bulls	130	1	600	2.2	13.2	0	13.2	1.72	0
✘ Ewes			80	2	1.6	0	1.6	0	0
<b>Total Required</b>								<b>167.79</b>	<b>6</b>

Taking in the first livestock type, 'Dairy Cows (Milking)', there are 100 cows milking for 15 days while indoors. The average weight of a cow is 600kg. The budget offers 3.2% of her weight as intake. This calculates to a total intake of 19.2kg DM/day (600\*0.032).

**There is a substitution rate of 70% between meal and forage.** For each 1kg of meal fed, it displaces 0.7kg of forage. The farmer wants to feed 4kg of meal per day per cow. The forage intake reduces to 16.5kg DM/cow/day (4\*0.7= 2.8 and 19.2-2.8= 16.5)

## Fodder

Each cow is eating 16.5kg DM/day; there are 100 cows, for a 15 day period – these values multiplied together give the **'Total Tonnes of Forage DM Required' – 24.75 tonnes.**

## Meal

Each cow is eating 4kg/day, there are 100 cows, for a 15 day period – these values multiplied together give the **‘Total Tonnes of Forage Meal Required’ – 6 tonnes.**

See other stock types and the calculations.

## Fodder availability

- The fodder section is split into pit silage and bale silage
- Pit silages – 4 options - 1st and 2<sup>nd</sup> cut grass silage, maize and wholecrop
- Each silage pit should be measured in metres using the average height x width x length
- The DM of silage can be changed to allow for an adjustment based on dry matter
- DM of silage is important as it changes the value used to calculate the kg/m<sup>3</sup> of the silage.
- Silage DM available in bale silage is calculated by the weight and the DM%, again DM can be adjusted
- Hay and straw is set for a 4x4 round bale.
- See below the dimensions of the silage pit are entered and this equates to 146 tonnes of DM
- 300 bales of silage are also available on the farm and have a DM% of 30%
- **Total fodder on the farm is 218 tonnes of DM**

Silage / Bales

HOME STORED FORAGE	LENGTH (M)	WIDTH (M)	HEIGHT (M)	CLAMP VOLUME (CUBIC METRES)	FRESH WEIGHT AVAILABLE (TONNES)	EST. DRY MATTER % OF FORAGE	TOTAL TONNES OF FORAGE DM AVAILABLE ON THE FARM
Grass Silage (Pitted)	24	12	3	864	561.6	26	146.02
Grass Silage (Pitted) - Second				0	0	26	0
Maize Silage (Pitted)				0	0	32	0
Wholecrop Silages (Pitted)				0	0	45	0
	NO. OF BALES ON FARM	WEIGHT OF EACH BALE (KG)					
Grass Silage (4X4 Round Bales)	300	800			240	30	72
Hay (4 x4 Round Bales)		300			0	85	0
Straw (4 x 4 Round bales)		150			0	85	0
<b>Total Tonnes of Forage DM Available on the Farm</b>					<b>801.6</b>		<b>218.02</b>

## Summary

- The summary section of the fodder budget takes the values from the livestock and forage section and calculates the surplus or deficit
- The % of required amount in stock and the number of days feeding short are also presented
- A message will appear depending on whether there is a deficit or a surplus as a guide
- If the farm is in a deficit, stock may need to be sold or purchased fodder may be an option

Summary

Total Required t/DM	167.79
Total in stock t/DM	218.02
<b>Surplus/deficit t/DM</b>	<b>50.2</b>
% required in stock	129.9
<b>Days short</b>	<b>0</b>

**Sufficient quantities in stock**