



USER GUIDE

SIMPLE FEED BUDGET (SFB)



An easy-to-use tool that makes feed budgeting super simple.

INTRODUCTION

The Simple Feed Budget tool aims to help you make decisions that will optimise both animal and pasture production within your operation.

With a couple of clicks on your computer keyboard, you can see how specific feed and stock decisions you make now will impact on your operation in the weeks to come. It's not a crystal ball, but it's close.

The Simple Feed Budget software is not a shiny new tool, but that is part of its beauty. It really is simple. Let's get started.

GETTING THE TOOL

(Please note—this software only works on Windows computers)

1) REQUESTING THE TOOL

Email resources@beeflambnz.com and request the "Simple Feed Budget tool". You can either have it posted to you on a memory stick OR we can email you a link to the file.

2) INSTALLING THE SOFTWARE

This step is very easy. Depending on how you received the file - from memory stick or Dropbox - follow these instructions:

INSTALLING FROM A MEMORY STICK

1. Go you the "Windows" icon - bottom left of your screen
2. Click on "Computer"
3. Under the heading "Devices with Removable storage", you'll see "Removable Disk" - double click on that icon
4. Double click on "simplefeedbudget.msi" and follow the install instructions

INSTALLING FROM THE DROPBOX LINK

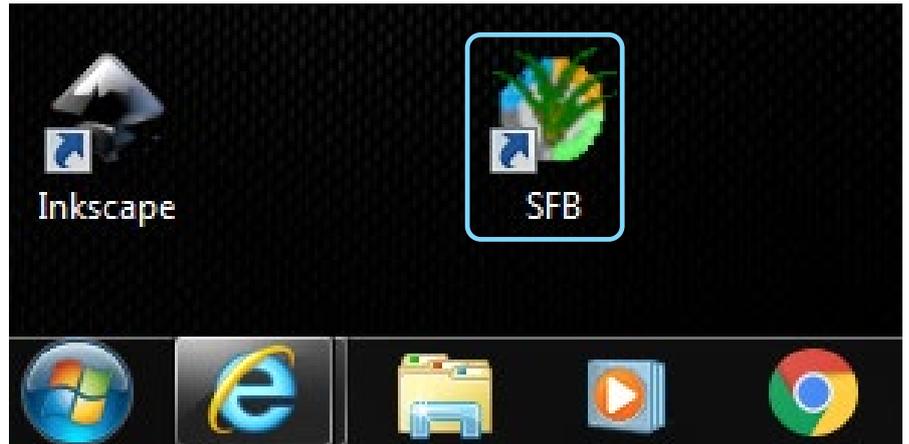
1. Click on the link emailed to you
 - If you already have Dropbox, skip through to step 4
 - If you don't already have a Dropbox account, you'll need to create one. Dropbox is a file sharing tool. It is easy (and free) to set up an account:
2. Click on 'Sign up for free'
3. Fill in the personal details, then select 'Create an account'
4. Download the .msi file
5. The application will pop up in a small window. Follow the instructions to download

Set up a shortcut on your desktop

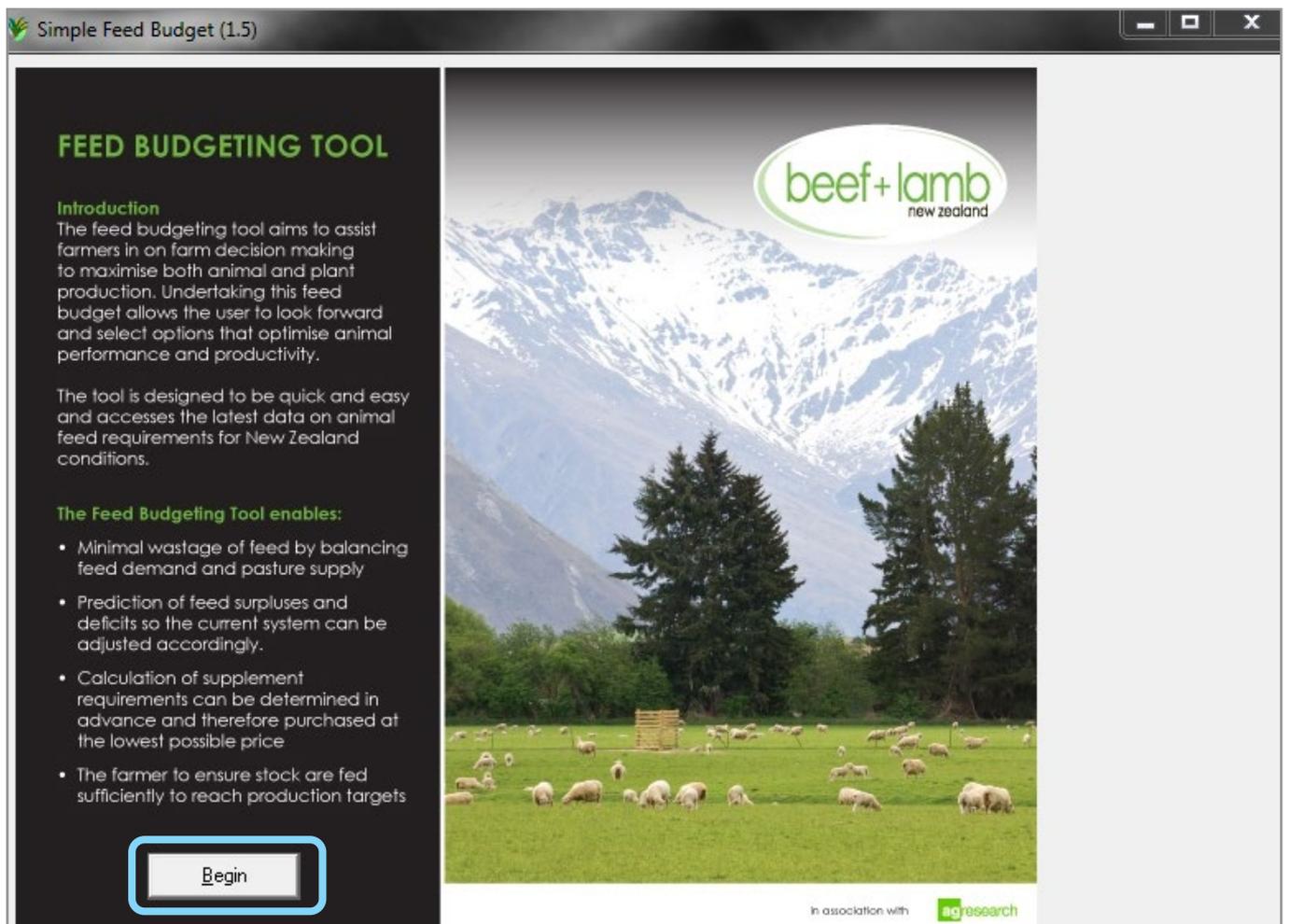
- Once the software is downloaded, right click on the unopened programme and select 'add shortcut' to add to your desktop
- Open application and get started

USING THE SOFTWARE

1. Now you have the tool on your computer, double click on the shortcut icon on your desktop.



This will bring up the Intro page.



2. When you're ready, click on "Begin".

Beyond the intro page, the entire tool has only four pages:

1. Feed Supply table – part 1
2. Feed Supply table – part 2
3. Feed Demand
4. Summary – the answers

FEED SUPPLY

1. First up is "Feed Supply". The page can look a little daunting at first. Hang in there. When you are getting started, we suggest you initially concentrate on the yellow fields only – those within the "Pasture" box.

Tip: You don't have to use the tool across your whole farm. For a start, you may want to concentrate on your easier, more productive country.

Simple Feed Budget

Feed Supply

Pasture

- Duration of feed budget (days)
- Pasture cover at start of period (kgDM)
- ME of pasture at start of period
- Pasture grazing area (ha)
- Pasture growth rate (kgDM/ha/d)
- Utilisation %
- ME of pasture from growth
- Total DM supply from pasture** 0

Nitrogen

- Area (ha)
- Rate (kgN/ha)
- Response (kgDM/kgN)
- Total DM supply from N** 0

Crop 1

- Crop 1 Area (ha)
- Crop 1 Yield (kgDM/ha)
- Crop 1 expected utilisation %
- Crop 1 ME
- Total DM supply from crop 1** 0
- Total MJME from crop 1** 0

Crop 2

- Crop 2 Area (ha)
- Crop 2 Yield (kgDM/ha)
- Crop 2 expected utilisation %
- Crop 2 ME
- Total DM supply from crop 2** 0
- Total MJME from crop 2** 0

Total DM from pasture and N (kg) 0

Total MJME from pasture and N 0

Total DM supply from crop (kg) 0

Total MJME supplied from crop 0

DM = Dry matter
kgDM/ha = kilograms of dry matter per hectare
ME = metabolisable energy

Previous Next

Required input Optional input Lookup

2. Let's plug in some figures.

Duration of feed budget (days): 28

This means the final summary page will tell us the feed situation in 28 days' time.

Pasture cover at start of period (kgDM): 2200

Let's assume it's early winter, you are in a summer-dry area and grass is a bit lean. You're going to concentrate this initial budget on the area of your farm used for finishing. This pasture cover figure is an average across that area, as at today.

Simple Feed Budget

Feed Supply

Pasture

- Duration of feed budget (days)
- Pasture cover at start of period (kgDM)
- ME of pasture at start of period
- Pasture grazing area (ha)
- Pasture growth rate (kgDM/ha/d)
- Utilisation %
- ME of pasture from growth
- Total DM supply from pasture** 0

ME of pasture at start of period: 9

Metabolisable Energy allows us to place a value on the quality of the feed. Is it ryegrass/clover that's rank and gone to seed (ME = approx. 9)? Or is it green and lush (ME = approx. 11)? Let's assume it's 9.

Tip: Some approximate MEs to get you started.

Green pasture = 11 Dead pasture ME = 7
Clover = 12 Grass = 9-11
Leaf = 11 Stem = 10

Pasture grazing area (ha): 40

We are going to concentrate on the easy country for this exercise. Let's plug in 40ha.

Pasture growth rate (kgDM/ha/da): 10

The area is not irrigated. See "Tip" below for pasture growth rates for your district.

Tip: Tucked in the back pages of "A Guide to Feed Planning For Sheep Farmers" are a couple of tables that show monthly pasture growth rates across 16 New Zealand sites, including irrigated and dryland options, where relevant. See Appendix 6 (pages 52-54).

www.beeflambnz.com/knowledge-hub/PDF/guide-feed-planning-sheep-farmers

Utilisation %: 75

Utilisation refers to how much of the feed on offer is actually consumed by livestock. Some feed is always left behind - trampled, soiled or simply not used. To be conservative, let's use 75% - i.e. 3/4 of the feed on offer will be eaten.

ME of pasture from growth: 11.5

New pasture growth is higher quality than old growth. Our feed supply part of the budget needs to reflect this. A figure of 11.5 will work well.

Feed Supply	
Pasture	
Duration of feed budget (days)	28
Pasture cover at start of period (kgDM)	2200
ME of pasture at start of period	9
Pasture grazing area (ha)	40
Pasture growth rate (kgDM/ha/d)	10
Utilisation %	75
ME of pasture from growth	11.5
Total DM supply from pasture	74400

That gives us our Total DM supply from pasture - in this case 74,400.

You can carry on and fill in figures for Nitrogen and Crops, if you wish, but for the sake of simplicity, we'll carry on with the bare bones info.

3. Click on the 'Next' button (bottom left of the box). You will then see a second page for Feed Supply.

Feed Supply continued

Baled hay/baleage available

Wgt per bale (kgDM)

Number fed

Utilisation %

ME of hay

Total DM supply from hay 0

Total MJME supplied from hay 0

Other

Weight (kgDM)

Utilisation %

ME of other

Total DM supply from other 0

Total MJME supplied from other 0

Stack/pit silage available

kg DM

Utilisation %

ME of silage

Total DM supply from silage 0

Total MJME supplied from silage 0

Total feed available (kgDM) 0

Total feed per ha (kgDM) 1335

Total MJME available 0

Total feed per ha (MJME) 10125

Average MJME 0

DM = Dry matter
kgDM/ha = kilograms of dry matter per hectare
ME = metabolisable energy

Previous **Next**

Required input Optional input Lookup

Again, you can fill in figures for baled hay/baleage and stack/pit silage. For this example, we'll push on. When you're ready, click on the 'Next' button.

FEED DEMAND

Now it's time to look at "Feed Demand".

Simple Feed Budget

Sheep & beef
 Dairy

Feed Demand

Sheep

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	<input type="text"/>	<input type="text"/>	?	1.11	0
2	<input type="text"/>	<input type="text"/>	?	0.00	0
3	<input type="text"/>	<input type="text"/>	?	0.00	0
4	<input type="text"/>	<input type="text"/>	?	0.00	0
5	<input type="text"/>	<input type="text"/>	?	0.00	0
6	<input type="text"/>	<input type="text"/>	?	0.00	0
Total DM demand from sheep (kgDM)					0

Beef

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	<input type="text"/>	<input type="text"/>	?	3.78	0
2	<input type="text"/>	<input type="text"/>	?	7.33	0
3	<input type="text"/>	<input type="text"/>	?	0.00	0
4	<input type="text"/>	<input type="text"/>	?	0.00	0
5	<input type="text"/>	<input type="text"/>	?	0.00	0
Total DM demand from cattle (kgDM)					0

Other

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	<input type="text"/>	<input type="text"/>		0.00	0
2	<input type="text"/>	<input type="text"/>		0.00	0
Total DM demand from other stock (kgDM)					0

Total feed demand (kgDM) 0

Total feed demand per ha 544

1. Let's assume we are going to use our 40ha of easy country (that we have entered into the Feed Supply table) to feed our replacement and finishing stock.

2. Let's pop in some stock figures, based on the following classes of stock, current weights and desired growth rates:

300 Replacement ewe hoggets (unmated)

- Current liveweight (approximate is fine, to get started): 40kg
- Desired growth rate: 150g/day

200 Replacement two-tooths (mated 1 April)

- Current liveweight: 60kg
- Desired growth rate: 50g/day

40 R1 heifer replacements

- Current liveweight: 170kg
- Desired growth rate: 0.7kg/day

40 R2 steers

- Current liveweight: 400kg
- Desired growth rate: 1kg/day

3. How do you calculate the MJME/hd/d figure to go in the green boxes? While the Simple Feed Budget programme includes tables to calculate MJME/hd/d figures (these can be accessed by clicking on the "?" to the right of each green box), the easiest way to source MJME/hd/d figures is to visit www.feedsmart.co.nz.

Tip: Download the **Feedsmart User Guide** at www.beeflambnz.com/knowledge-hub/PDF/feedsmart-user-guide. Spend 5 minutes - if that long - and, for the rest of your days, you'll have livestock feed intakes at your fingertips. It's a joy to use.

4. The completed table will look like this:

Simple Feed Budget

Feed Demand Sheep & beef Dairy

Sheep

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	Replacement ewe hoggets	300	15	1.50	12600
2	Replacement two-tooth ewes	200	14	1.40	7840
3				0.00	0
4				0.00	0
5				0.00	0
6				0.00	0
Total DM demand from sheep (kgDM)					20440

Beef

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	R1 heifer replacements	40	55	5.50	6160
2	R2 beef steers	40	106	10.60	11872
3				0.00	0
4				0.00	0
5				0.00	0
Total DM demand from cattle (kgDM)					18032

Other

	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1				0.00	0
2				0.00	0
Total DM demand from other stock (kgDM)					0

Total feed demand (kgDM) 38472
Total feed demand per ha 962

Previous **Next**

When you are happy, click the “Next” button.

SUMMARY

Now for the moment of truth ... will you have enough feed supply to meet your feed demand?

In this case, no you do not. The End cover figure of 898kgDM shows a shortfall.

Depending on the time of year, your region and the classes of stock you are grazing, your End cover figure should be somewhere in the 1000-3000kgDM range.

Tip: For lambing in spring, an End cover figure in the 1200-1800kgDM/ha range is recommended.

Simple Feed Budget

Summary

Start cover (kgDM)	2200
Feed supply (kgDM/ha)	1860
Feed demand (kgDM/ha)	962
End cover (kgDM)	898

Don't be disheartened. This is the whole point of feed budgeting: to identify the scale of your feed shortage or feed excess and pro-actively make changes accordingly.

What now?

Now it's time to start "pulling some levers". You generally have three options:

- A. Buy in supplements
- B. Get rid of some stock
- C. Apply nitrogen (spring or autumn)

1. So let's have a play. Click the "Previous" button and take another look at Feed Demand.
2. Let's quit half of our R2 steers and see what impact that has on End cover. Simply change the "40" to "20" in the steer "Number in mob" box, then click on "Next" to return to the Summary page.

Beef					
	Name of mob	Number in mob	MJME/hd/d	DM intake/hd	Total DM intake
1	R1 heifer replacements	40	55	5.50	6160
2	R2 beef steers	20	106	10.60	5936
3				0.00	0
4				0.00	0
5				0.00	0
Total DM demand from cattle (kgDM)					12096

3. Our End cover figure is now 1047kgDM - so better, but still a shortfall.

Summary	
Start cover (kgDM)	2200
Food supply (kgDM/ha)	1860
Feed demand (kgDM/ha)	813
End cover (kgDM)	1047

What else can we do?

4. Click the "Previous" button three times, until you are back on the first Feed Supply page.
5. Let's consider an autumn application of nitrogen, at say 30kg/ha across all 40ha of our easy country.

Tip: As a general guide, assume a response rate of 10kgDM/kgN.

Nitrogen	
Area (ha)	40
Rate (kgN/ha)	30
Response (kgDM/kgN)	10
Total DM supply from N	9000

6. Click "Next" to go to the second page of Feed Supply.

7. Let's also consider buying in 100 round bales of good quality hay. Realistically, some will be wasted, so we'll say 85% utilisation. The ME of good quality hay is about 8.

Feed Supply continued

Baled hay/baleage available	
Wgt per bale (kgDM)	200
Number fed	100
Utilisation %	85
ME of hay	8
Total DM supply from hay	17000
Total MJME supplied from hay	136000

8. Click "Next" a couple of times until you are back on the Summary page. Now you'll see the equation is looking much healthier, with an End cover of 1697kgDM – still a little light for early winter (depending on your farm and the season), but getting closer to a comfortable position.

Simple Feed Budget

Summary

Start cover (kgDM)	2200
Feed supply (kgDM/ha)	2510
Feed demand (kgDM/ha)	813
End cover (kgDM)	1697

CONCLUSION

Taking the time to plug some of your own operation's figures into the Simple Feed Budget tool will give you a level of confidence to either proceed with your current approach, or a timely heads up that you need to "pull some levers".

If you want more information or support around feed budgeting, please contact your local B+LNZ Extension Manager on 0800 233 352.

