Sheep and Beef Farm Survey Data 1980 – 2009

Meat and Wool Economic Service,
Meat and Wool New Zealand Limited

Data Documentation
Motu Economic and Public Policy Research

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Restrictions

Restricted

Raw data set

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Data Documentation

(Please note that this is informal documentation intended to help users.
It is not a polished document. Additions and corrections are welcomed)

1. Data documentation prepared by:

Wei Zhang

2. Dataset abstract

This dataset provides sheep and beef farm information on area and livestock numbers, capital structure, expenditure, gross margin of livestock, income and sale prices from 1980 to 2008. This data was gathered from Meat and Wool Economic Service (MWES) surveys. The dataset is classified by 5 regions and by 8 classes, which are defined by Meat and Wool Economic Service.

3. Motu Working Papers using this data set

Kerr, Suzi and Wei Zhang. 2009. "Allocation of New Zealand Units within Agriculture in the New Zealand Emissions Trading System," *Motu Working Paper* 09-16.

4. Variables

Variables: all variables are of 2 dimensions -- by region and farm class both defined by MWES:

- Area and livestock of farm
- Capital structure
- Expenditure
- Gross Margin of livestock
- Income
- Sale prices

5. Order information/Email correspondence

5.1. First order period (Order made mid-2003)

Table 1 Terminology

Term	Description
Open	As at June 30 of the first year listed (year_open)
Close	As at June 30 of the second year listed (year_close)
Stock unit	Stock units are a measure of livestock pasture demand based on the annual feed consumption of 1 breeding ewe producing 1 lamb ie 1 breeding ewe = 1 stock unit (su).

Prime stock	Go to the works for slaughter
Store stock	Old through the yards or privately to other farms for fattening
Account	Net stock transactions (sales-purchases), also adjustment for change in stock value

Table 2 Economic Service Farm Classes

Farm Class	Name	Production Type	Description
1	South Island High Country	Breeding and selling stock (store)	Extensive run country located at high altitude carrying fine wool sheep, with wool as the main source of revenue. Located mainly in Marlborough, Canterbury, and Otago.
2	South Island Hill Country	Breeding and selling stock (store)	Mainly mid micron wool sheep mostly carrying between two and seven stock units per hectare. Three quarters of the stock units wintered are sheep and one quarter beef cattle.
3	North Island Hard Hill Country	Breeding and selling stock (store)	Steep hill country or low fertility soils with most farms carrying six to ten stock units per hectare. While some stock are finished a significant proportion are sold in store condition
4	North Island Hill Country		Easier hill country or higher fertility soils than Class3. Mostly carrying between eight and thirteen stock units per hectare. A high proportion of sale stock sold is in forward store or prime condition.
5	North Island Intensive Finishing Farms	Finishing/fattening stock and selling to works (fattening)	Easy contour farmland with the potential for high production. Mostly carrying between eight and fourteen stock units per hectare. A high proportion of stock is sent to slaughter and replacements are often bought in.
6	South Island Finishing-Breeding Farms	Finishing/fattening stock and selling to works (fattening)	A more extensive type of finishing farm, also encompassing some irrigation units and frequently with some cash cropping. Carrying capacity ranges from six to eleven stock units per hectare on dryland farms and over twelve stock units per hectare on irrigated units. Mainly in Canterbury and Otago. This is the dominant farm class in the South Island.
7	South Island Intensive Finishing Farms	Finishing/fattening stock and selling to works (fattening)	High producing grassland farms carrying about ten to fourteen stock units per unit hectare with some cash crop. Located mainly in Southland, South and West Otago.
8	South Island Mixed Finishing Farms	Finishing/fattening stock and selling to works (fattening)	Mainly on the Canterbury plains with a high proportion of the revenue being derived from grain and small seed production as well as stock finishing.

5.2. Email correspondence

5.2.1.Part 1

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Hi Jo
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Thanks for returning the signed contract promptly.

Attached is an Excel spreadsheet with Part 1 data - ie Livestock numbers (sheep, beef cattle, dairy cattle, deer, goats - though I might as well add them as well, total stock units) and land use data (number of all category of farms as recorded by Statistics New Zealand, Total pasture area, Total Horticulture area, Total plantation area - mainly forestry, Other area and Total areas. Note areas are all recorded in hectares.

All data provided is as at 30 June of the first year ie 1980-81 data was as at 30 June 1980.

The first sheet "1980s by County" shows the above data by County from 1980-81 to 1990-91. Please note that the recording of horticultural area started in 1986-87 and the recording of deer and goat numbers prior to 1984-85 was only on a national basis (which is why an extra line for New Zealand is used - where stock units are only referring to stock numbers on that line ie deer and goats). The total line is the total for New Zealand in the year shown.

The second sheet "1990s by District" shows livestock numbers and land use data from 1990-91 to 1999-00 for each TLA. Note in 1990-91 livestock numbers are provided both on a county and district basis. Kawerau has nothing recorded in 1991-92 as Statistics New Zealand had nothing for that year. It is more than likely that the data was recorded in a neighbouring TLA or that there was none as Kawerau is a very small TLA.

1996 was the last reliable Agriculture Production Survey. From that point on we have no land use data. The 1999-00 Survey provided livestock numbers by regional Councils (rather than by TLA) and used a different population framework from the previous Surveys. As a consequence, the livestock numbers derived from the 1999 survey do not necessarily link to the historic series. However, we have estimated livestock numbers as at 30 June 1997, 1998 and 1999 by TLA. Statistics NZ carried out a livestock census as at 30 June 2002. The full results from this census are due to be released in May 2003. It is our intention to estimate/ re-estimate livestock numbers for 2001, 2000 and possibly back to 1996. We will

provide these for Motu once they are completed - probably not until June/July 2003 but we will provide the 2002 data as soon as we get it.

If you have any questions relating to Part 1 data or any other questions please contact us.

Rob indicated to me that he will attend the seminar in Palmerston North. It may pay to give him a ring on 471-6034 to confirm this with him.

Have a good Easter break and we will start preparing Part 2 data for you shortly.

Kind Regards

Matthew

CB428-Pt1.xls

5.2.2.Part 2

Hi Jo

Please find attached a workbook containing data for Part 2 of the Contract. All this data is sourced from the MWI Economic Service Sheep and Beef Farm Survey.

Note: All data is supplied by Class (1-9) and Region (Northland-Waikato-Bay of Plenty, East Coast North Island, Taranaki-Manawatu, Marlborough-Canterbury, Otago-Southland and New Zealand)

I did not split Otago and Southland out separately as the farm numbers for some of the data in Classes 1 and 2 would become too small to give a reasonable representation.

The North Island has 3 Sheep and Beef Farm Classes 3,4,5 and 9 is the All Classes Weighted Average ie Northland-Waikato-BoP Class 9 data is the weighted average of the 3 classes for this region. It is important to note that while the "Weighted Average All Classes" (Class 9) data do not represent any Class of farm within the industry they do give a concise statement of the "average" situation and are useful to evaluate trends, policy changes and shifts in economic conditions. The South Island has 5 different Classes 1,2,6,7 and 8. The definition of the 8 farm classes and the weighted average farm class (9) is given on page 8 and 10 of the published Sheep and Beef Farm Survey.

The first sheet "Area, Stock" contains average farm sizes, stock numbers, stock purchase and sales numbers, Kg of velvet, goat fibre and wool sold per farm from 1980-81.

Total farm area = a (effective pasture) + b (horticulture) + c (forestry) + d (unimproved eg bush). When we calculate per hectare data we usually use effective area.

Stock numbers at open are as at 30 June of the first year listed ie 1980-81 is stock as at 30 June 1980. Dairy heifers are sometimes grazed on Sheep and Beef farms and should be included as stock and used in the stock unit calculation because they consume pasture that could have been used for sheep and beef cattle. We also added lambs tailed, calved marked etc which are generally born in the spring of the first year listed.

Stock units are a measure of livestock pasture demand based on the annual feed consumption of 1 breeding ewe producing 1 lamb ie 1 breeding ewe = 1 stock unit (su). Other classes of livestock are defined to have feed demand requirements relative to the breeding ewe as shown in Table 2.1 in the Survey Publication (page 12).

Sheep and lamb purchases are shown separately. These either occur privately or through the sales yards. Total lamb sales are also split into prime (e) and store (f). Prime stock go to the works for slaughter and store stock are sold through the yards or privately to other farms for fattening. The same applies for adult sheep where g (store sheep sales) + h (prime sheep sales) + i (Mixed Sex prime hogget sales) = total sheep sales. Note technically the majority of m/s hoggets are sold as lambs but for our reconciliation purposes we categorise them as sheep. A hogget is a young male sheep or maiden ewe having no more than 2 permanent incisors (teeth) in wear.

Total cattle purchases are j (adult) + k (weaner) + l (mixed sex bobby calves). Note the m/s calves were separated from weaners in 1999-00 and prior to this were included in the weaner total. Total cattle sales are m (weaner sales) + n (prime cattle sales) + o (store adult cattle). Note weaner sales are generally sold as store.

The same applies for deer but only split on weaner and adult deer sales and purchase numbers. We also added the number of stags velveted and kg of velvet sold, which is also produced on Sheep and Beef farms.

Total goat purchases and sales as well as kilograms of goat fibre are provided. Note goat numbers are relatively small in NZ but over half of farm goats are run on Sheep and Beef farms and are considered part of the industry.

Sheep and lambs wool sold are also provided ie t + u = total kilograms of shorn wool sold. These are given greasy - ie before wool is processed.

Note: Some of the columns are formulas to avoid rounding errors although in some cases there may still be the odd rounding error ie the sum may not add by 1 to the total.

The Second sheet shows income generated per Sheep and Beef Farm from 1980-81. These figures are in nominal $. The Sheep, Cattle, Deer and Goat accounts show the net stock transactions (sales - purchases) as well as an adjustment for change in livestock values. Most of the others are as described in the heading. Note Other includes revenue from activities such as contracting, hay sales, cash rebates, other livestock, rent etc. Columns D to M should some to Total Gross Farm revenue.

The third sheet shows expenditure on Sheep and Beef Farms from 1980-81. Points to note -

Total shearing includes shearing labour and contract as well as shearing shed expenses.

The Contract item stopped being used in 1997-98 and this expenditure was reallocated to other categories - mainly Repairs and Maintenance, Feed and Grazing and Cultivation and Sowing (which was created. Total Working Expenses should equal the sums of Columns D to T.

In 1983-84 ACC was spilt out from total farm insurance (a + b = total). For the 3 years prior to 1983-84 only total farm insurance is provided.

Managerial salaries are paid to managers employed on the farm and who have no ownership interest in the property.

Total standing charges = c (rates) + d (Managerial salaries) + e (interest) + f (rent) + Column Y (ACC and Other Farm Insurance).

Depreciation is the only non-cash expenditure item but is still included as farm expenditure as it is a cost to the business.

Total farm expenditure = working expenses plus standing charges plus depreciation.

Farm profit before tax = Gross Farm Revenue - Total farm expenditure. Note: The farm profit per farm is required to meet drawings, tax, debt repayments and the purchase of capital items.

Hopefully that covers everything. This is definitely the largest Part to the Contract although some work is still required for the gross margins. Part 5 is relatively straight forward, which I will try and complete this afternoon as well.

If you have any questions please contact us.

Kind Regards

Matthew Newman

CB428 Part 2

5.2.3.Part 4

Hi Jo

Please find attached a workbook containing data for Part 4 of the Contract. All this data is sourced from the MWI Economic Service Sheep and Beef Farm Survey.

The attached spreadsheet shows the average sales $ per head net (ie excluding GST) received at the farm gate per class and region from 1980-81. We have provided a mixture of stock sales prices for different ages and class of stock. The all lamb receipts, average sheep, average cattle, average deer and average goat sales (Columns F, J, T, Z, AB) are the average sales prices per head for all sales and not just those shown in this workbook. The total (average) sales price is probably the best indication of price movements for sheep, cattle, deer and goats. Remember some Farm Classes are breeding and selling stock (store) eg Class 1, 2 3 while others are finishing/fattening stock and selling them to the works (prime) eg Class 5,6,7,8

As with sales numbers Store stock prices are those received for private sales to other farms and those received for stock sold at the saleyards - usually going onto other farms for finishing. Prime stock are sold for slaughter to the works.

If you require further information or have any queries regarding this information please contact me. I will try and provide the final data - Part 3 (Gross Margins) towards the end of next week.

Kind Regards

Matthew Newman

CB428 Part 4

5.2.4.Part 5

Hi Jo

Please find attached a workbook containing data for Part 5 of the Contract. All this data is sourced from the MWI Economic Service Sheep and Beef Farm Survey and is provided on the same basis as Part 2 ie by Class and Region.

This data shows the Capital Structure of Sheep and Beef Farms at Close ie at 30 June of the second year listed eg 1980-81 financial data as at 30 June 1981. Remember the data is per average farm in each class and region. Book values of capital items eg land, buildings and improvements bear little relation to their current worth and therefore MWI Economic Service assess the current market value of all Sheep and Beef Farm assets.

Farm Capital = a + b + c + d + e + f + g ie (land and buildings + other plant and machinery + other plant and machinery + stock values). ie Farm assets at market value.

Land as freehold includes land (including leased land), buildings and all other improvements eg fences, races, permanent water troughs etc. The homestead is excluded as it is not part of the farm business.

Truck and tractor items include all self propelled vehicles and farm machinery ie truck, ute, tractor, bike. It excludes car.

Other Plant and Machinery includes all non-self propelled farm plant and machinery eg trailers.

Stock Values are derived by applying market values to closing stock numbers.

Total Assets = Farm Capital plus other assets valued at close eg cash in bank, term deposits, investments off-farm, homestead, car etc.

Total Farm Capital is the Farm Capital plus an allowance for working capital. See page 58 and 60 of the Published Survey.

Economic Farm Surplus (EFS) is defined as the return available to the owner-operator after an allowance for his/her labour management input.

Farm Profit Before Tax

+ Managerial Salaries

+ Interest paid

+ Rent paid

- Assessed managerial reward (a standardised allowance for labour and management of owner)

= EFS

The Rate of Return on Total Farm Capital is provided - EFS/Total Farm Capital.

The liabilities side of the balance sheet is also provided

Fixed liabilities include mortgages, term debts etc.

Reserves is an item used to take account of any livestock or land included under assets that were not owned by the farm business. This allows the correct Net Worth to be shown.

Total liabilities = h + i + j + k.

The Equity % is simply the net worth of the business / Total liabilities.

It is interesting that the equity percentage has remained around 75-85% throughout most of the last 2 decades. I suspect the equity of dairy farms is now well below this level due to farm expansion and the enormous cost of setting a dairy farm up.

Once again if you have any questions regarding this information please contact us. I will try and have Part 4 livestock sales prices to you by the end of Friday.

Kind Regards

Matthew

CB428 Part 5

Total Areas

Hi Emma

The attached spreadsheet shows the Total pasture area (in hectares), Dairy pasture area (Column F), Commercial Sheep and Beef pasture (Column H) and the Other Pastoral area covers lifestyle blocks, Government farms and all other livestock types eg Deer, goats etc from 1980-81 to 2002-03. These should match the data sent to Motu earlier in the year - and have been extrapolated to fill in gaps in the 1990s. Note these pasture areas are our estimate based on farm numbers and average sizes.

Also note the 1980-81 figure of 9.9 million pasture hectares appears to be too low. It probably should be around 14.9 million hectares. If you look back on the original data sent the other pasture area is approximately 5 million hectares overstated. My suggestion would be to keep the same proportions for each County but increase them all proportionately so they total 14.9 million. Then make "Other" a residual (ie reduce it by the increase in pasture). The rest of the data appear to be OK.

The only way to proportion this national pasture ha out per region is to use a stock unit approach.

In the post today (you should receive it Friday or Monday) is a copy of the Statistics New Zealand Land Use by Farm type (ANZSIC) from 1980 - 2002. Note: since 1996 there has only been 2 Livestock Survey Counts - 1999 and 2002. These both used different population frameworks from previous years and may not line up with earlier years.

If you spend a bit of time you may be able to come up with a better estimate of pasture area for sheep, beef and dairy based on the Statistics New Zealand data?

If you require further information please contact us. There is no extra charge for any of this data.

Enjoy the rest of the sun

Matthew Newman

Economist

MWI Economic Service

6. Second order period (2009)

6.1. Email correspondence

From: Con Williams [Con.Williams@meatandwoolnz.com]

Sent: Monday, 10 September 2007 11:22 a.m.

To: Kelly Lock

Subject: Meat & Wool New Zealand Information Request

Hi Kelly,

Attached are the five parts of the contract agreed on. Have a look over them and get back to me if there is anything else required that you think I have missed. The invoice will follow in post sometime this week. Anything else you wish to discuss regarding the data provided give me a call 04 471 6037.

Remember the 2007-08e was forecast on the 80 cents USD and the associated cross rates but this has dropped below 70 cents at the moment.

Cheers Con

From: Cleo Ren [mailto:cleo.ren@motu.org.nz]

Sent: Thursday, 29 January 2009 5:30 p.m.

To: Rob Davison

Cc: Suzi Kerr

Subject: Meat & Wool Economic Service data update request

Dear Rob,

At Motu we are reestimating our national level land use relationships. One of the datasets we use, on

pasture area by farm types, was provided to us by Meat & Wool Economic Service for the years 1980-

81 to 2002-03 (see attached file). It contains variables such as total pasture area, dairy land area,

commercial sheep and beef area and other pastoral area.

We would very much like to obtain an updated version of this dataset, up to the most recent date

possible, so that our data series are consistent. We know that you are able to more accurately divide

pasture into sheep/beef, dairy and other pastoral than we are. Can you please let us know how much

it would cost to provide this update and how long it would be likely to take. We know you are really

busy.

Thanks very much,

Cleo Ren

Cleo Ren

Research Analyst

Motu Economic & Public Policy Research

www.motu.org.nz

64 4 939 4250

Level 1, 97 Cuba Street,

PO Box 24390, Wellington,

New Zealand

From: Rob Davison [mailto:Rob.Davison@meatandwoolnz.com]

Sent: Thursday, 5 February 2009 3:48 p.m.

To: Cleo Ren

Subject: RE: Meat & Wool Economic Service data update request

Hi Cleo

The document you sent dates back to 2003. Around 10 September 2007 we sent an update by region

similar to the attached. The attached spreadsheet is re-calibrated from SNZ Ag Census 2002 and the

recently Ag Census 2007. I have added a tab showing the Districts within each of our production

regions.

Let me know how these data suit.

If OK we can send an invoice $450 plus GST.

Cheers

Rob Davison

CB581

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Rob Davison

Executive Director

Economic Service

Meat & Wool New Zealand Ltd

P.O. Box 121 Wellington, New Zealand

Phone [64] (0)4 473 9150 Fax [64] (0)4 474 0801 DDI [64] (0)4 471 6034

www.meatandwoolnz.com

From: Rob Davison [Rob.Davison@meatandwoolnz.com]

Sent: Thursday, 26 February 2009 3:09 p.m.

To: Cleo Ren

Subject: RE: Meat & Wool Economic Service data update request

Attachments: CB581-Pt1.xls

Categories: Red Category

Hi Cleo

At last find attached a copy of the "Part1" report on land use allocation. This recalibrates land use between the 30 June 2002 and 30 June 2007 Ag Census data from SNZ. The 2008-09 allocation includes our update and incorporates the 330 dairy farms converted from Sheep & Beef that started in the spring of 2008.

An invoice will be sent for $450 plus GST.

We would be able to supply the other 4 reports on sheep and beef farm data. The charge for this would

be around $5,000. What this would be adding would be final data for 2006-07, and provisional data for

2007-08 and estimate for 2008-09. 2007-08 was a very tough financial year for the Sheep and Beef

Sector with the lowest farm profit before tax in at least 50 years.

See attached - any feed back appreciated.

Cheers

Rob

CB581

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Rob Davison

Executive Director

Economic Service

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www.meatandwoolnz.com

From: Renee Tipene [mailto:renee.tipene@motu.org.nz]

Sent: Monday, 30 March 2009 5:39 p.m.

To: Rob Davison

Subject: Part 3 of CB 568 and CB 428

Hi there Rob,

I have been trying to find some data on the Gross Margins (by Class and Production regions) and have

come across two data sets (From the contracts quoted above) the actual values in the earlier data (CB

428) runs from 1980-81 to 2000-01 and the latter from 2000-01 to 2005-06. However in the overlapping

dates the data doesn't match up. For example:

From Contract CB 428:

Production Region

Class

Year

Sheep GM

Cattle GM

Deer GM

Sheep GM

Cattle GM

Deer GM

$ per ssu

$ per csu

$ per dsu

$ per head

$ per head

$ per head

Northland-Waikato-BoP

3

2000-01

31.09

34.09

53.28

28.18

165.35

90.32

and from Contract CB 568

Class

Production Region

Year

Sheep GM

Cattle GM

Deer GM

Sheep GM

Cattle GM

Deer GM

$/ssu

$/csu

$/dsu

$/head

$/head

$/head

3

Northland-Waikato-BoP

2000-01

33.06

38.16

59.37

29.96

185.10

100.65

Are you able to help me reconcile these differences? I would like to be able to convert the older data to

match up with the more recent data and have a smooth transition, is this possible?

Thank you very much for your time.

Regards,

Renée Tipene - Intern

Motu Economic and Public Policy Research

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PO Box 24 390 - Wellington

youFrom: Rob Davison [mailto:Rob.Davison@meatandwoolnz.com]

Sent: Thursday, 9 April 2009 8:00 p.m.

To: Renee Tipene

Subject: RE: Part 3 of CB 568 and CB 428 Meat & Wool New Zealand Economic Service Reply

Hi Renee

Apologise for the time taken top reply but we have had staff away overseas creating a work backlog.

The answer to why the difference in gross margins seems to lie with 2000-01 data being subsequently

updated though it was noted as final in CB 428. The first data set (CB428) was dated 16 May 2003 and

the later data set (CB568) was dated 6 Sept 2007.

The attached spreadsheet updates gross margin data from 1980-81 to the estimate for 2008-09. This is a

consistent data series and includes all technical updates and adjustments - for your purposes 2000-01 -

through to the current year.

It is interesting to note the impact of the high New Zealand exchange rate on export prices (and hence

gross margins) compared with 2008-09 and a much more favourable exchange rate for exporters. Lamb

prices have proved to be robust in offshore markets despite the recession.

Please phone if you wish to discuss these data further.

Kind regards

Rob Davison

CB581a

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Rob Davison

Executive Director

Economic Service

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www.meatandwoolnz.com

From: Renee Tipene

Sent: Wednesday, 22 April 2009 12:08 p.m.

To: rob.davison@meatandwoolnz.com

Cc: Suzi Kerr; Cleo Ren

Subject: RE: Part 3 of CB 568 and CB 428 Meat & Wool New Zealand Economic

Service Reply

Attachments: CB581-Pt3a.xls

Hi Rob,

Great thank you so much for that updated information I really appreciate it, now we have a consistent and

meaningful time series over this time, and this will be really helpful when looking at possible causation in

stocking rate changes.

Thanks for your help,

Renee Tipene

7. Additional notes: anything else that may be useful to know

7.1. Data source: Meat and Wool Surveys

The following information briefly outlines Meat and Wool survey/statistical methods. This information is from 2001/02 (relevant to an older version of the data than that which we used). (Motu to update with newer version.)

Statistical Methods Employed

Once farms have been randomly selected District Officers classify each farm by class and flock size.

In addition to the random selection of farms, several other statistical techniques are employed to reduce the random sampling error. These are:

1. Stratification by geographical area.
2. Stratification by flock size and farm class.
3. The use of variable sampling fractions.

Stratification

This means that the "population" is divided into groups that are more or less homogeneous. Each of the groups of strata is then sampled at random which ensures that groups within the population that are of interest are adequately represented. Three main kinds of stratification have been used:

Geographical Stratification - The aim is to spread the total sample of approximately 560 farms over the main sheep and beef farming districts in New Zealand by a process of random selection proportionate to the sheep and beef farm populations.

Flock Size Stratification - Initially, all farms with less than 750 stock units and Crown properties are excluded. This reduces the population to be covered by over twenty two thousand farm holdings. This excludes 5 per cent of the sheep flock and 23 per cent of the national beef herd. In carrying out this stratification, farms are randomly selected in proportion to the distribution of flock sizes within the geographical stratification. A deviation from rigorous adherence to the population distribution of size groups is caused by the need to have at least 25 to 30 farms in a stratum before it is of any analytical use.

Farm Class Stratification - The Survey results are classified into eight farming sub-groups as defined on page 8. While it is realised that these cannot cover every sheep and beef farm type completely, this has proved a reasonably satisfactory method of classification.

The pattern of sheep and beef farm revenue in the Survey sub-groups illustrates the major differences between groups. For example wool revenue is dominant in the South Island High Country and cattle produce a high proportion of revenue on North Island properties. Cash crops contribute to farm revenue on North and South Island intensive farms.

Variable Sampling Fractions

The use of variable sampling fractions for different strata can lead to considerable gains in accuracy in cases where the material is known to have a wide deviation from the mean, and especially if the sampling fraction can be made proportional to the strata distribution. This technique has been used to advantage and variations in the sampling fractions reflect this approach.

7.2. Peripheral information and data about MWES dataset

Users can excess additional information in

D:\LIBRARIES\DDL_Data_&_Documentation_Library\Restricted\R9954 Meat and Wool Economic Service data 1980-2008\Documentation\Peripheral dataset from Maribeth era

Under this path, you can find information on economic service district numbers by survey region, how regions are divided, survey methodology (.pdf file) and survey weights.

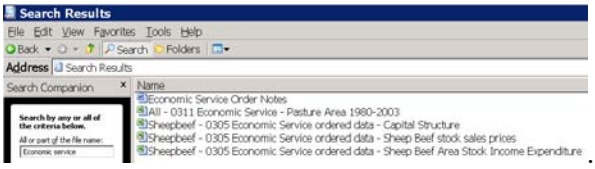
7.3. Background

Meat and Wool Ltd or Economic Service has contracted to provide data (financial, animal number, farm area and capital structure) for sheep-beef farms by region and class from 1980 to 2009. The contracts are divided into 3 phases.

7.3.1. The information below is history of Motu's dataset filing (now all saved in data library under): D:\LIBRARIES\DDL_Data_&_Documentation_Library\Restricted\R9954 Meat and Wool Economic Service data 1980-2008\Data

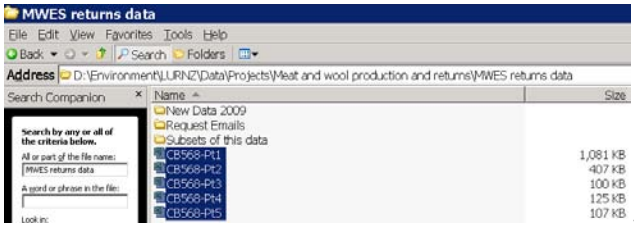
History:

In 2003, Motu acquired the data (1980 - 2002), which is saved under D:\g\Research\Data_Library\Motu_Data\Free_Data\Enviromental_Raw_Data. If you do a search in the above path with key word "Economic Service", you will find the following files:

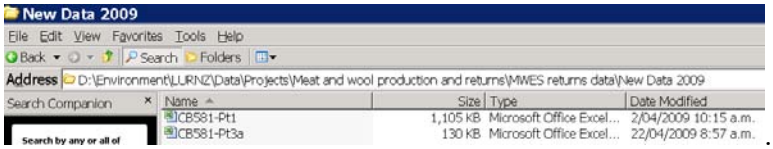


. In addition, those files can also be found in D:\Environment\LURNZ\Data\Raw data\non-GIS data\Raw Data\Data\Returns.

In 2007 and 2008, Motu updated the same data to 2008. The data is saved under D:\Environment\LURNZ\Data\Projects\Meat and wool production and returns\MWES returns data.



In 2009, the same data were partially updated. The data is saved under D:\Environment\LURNZ\Data\Projects\Meat and wool production and returns\MWES returns data\New Data 2009.



. The updated parts are land area by use from 1990/1991 – 2008/2009, and gross margin for each animal type by region and class from 1980/81 to 2008/09.