

THE DEPARTMENT OF INTERNAL AFFAIRS

Te Tari Taiwhenua



Attitudes Towards the Daylight Saving Extension:
General Public & Dairy Farmers – FINAL REPORT

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Confidential

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General Public & Dairy Farmers – FINAL REPORT

PREPARED FOR The Department of Internal Affairs Te Tari Taiwhenua
PREPARED BY Shane Palmer
Katrina Fryer
Emanuel Kalafatelis
CONTACT DETAILS Katrina Fryer
Research New Zealand
Phone 04 499 3088
www.researchnz.com
PROJECT NUMBER #3757



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1.0 Executive Summary

This report presents the results of a survey of the general public and dairy farmers, conducted by telephone, between 8 and 29 April 2008, following the end of the daylight saving period. The overarching purpose of the survey was to measure the impact of the extended period of daylight saving on New Zealanders.

This section of the report provides the key findings.

1.1 Introduction

Historically, daylight saving has generated much public debate in New Zealand. At the end of daylight saving in 2006, a petition to further extend daylight saving was presented to Parliament. This led to the Government deciding to extend daylight saving in 2007, so that the daylight saving period starts on the last Sunday in September and finishes on the first Sunday in April.

When the extension of the daylight saving period was announced, the Government stated that it would monitor the effect of New Zealand's extended period of daylight saving to see if there were benefits. As part of this monitoring, Research New Zealand was commissioned to measure the extent and impact of the extended daylight saving period among the general public (16 years or older) and dairy farmers.

Specifically, a telephone survey was conducted with randomly selected, nationally representative samples of the general public (n=1006) and dairy farmers (n=494). Quotas were set by region, so as to allow for the analysis and reporting of the survey results by those living in the North, Central, and South of the country. The country was split into these three areas as sunset and sunrise times vary considerably by latitude.

Interviews were completed by telephone, between 8 and 29 April 2008 (i.e. following the end of the extended daylight saving period). The response rate for the survey was 53 percent of those phoned overall.

Results for the general public sample have been weighted by 2006 Census population counts to reflect age and population distributions in the North, Central and South regions of New Zealand. The maximum margin of error for the total sample of n=1006 general public respondents is ± 3.6 percent, at the 95 percent level of confidence.¹

¹ The maximum margin of error (at the 95 percent confidence level) provides the range around the reported percentage which is likely to include the true percentage for the population of interest, assuming a normal sample distribution. In other words, one is 95 percent confident that the "true" percentage is within the plus/minus range quoted, given a survey sample of the size in question.



Results for the dairy farmers sample have been weighted by 2006-07 dairy farm herd counts to reflect the population distributions of dairy farms in the North, Central and South regions of the country.² The maximum margin of error for the total sample of n=494 dairy farmers is ± 4.5 percent, at the 95 percent level of confidence.

Margins of error are higher for subgroups of the general public and dairy farmers, and for differences between subgroups.

1.2 Key findings

Table 1 overleaf summarises the key findings of the survey. These are as follows:

- ◆ General public:
 - ◆ Approval of daylight saving in general was measured using a five-point scale, running from strongly approve to strongly disapprove. Using this scale, 90 percent of all respondents approved, with 72 percent *strongly approving*. In contrast, six percent disapproved.
 - ◆ Approval of the extension to daylight saving was measured using the same five-point approval-disapproval scale. Eighty-two percent of respondents approved, with 57 percent *strongly approving*. In contrast, 5 percent disapproved and 6 percent strongly disapproved.
 - ◆ There were some differences by age, with older adults (aged 60 or more) less likely to approve (77 percent approved) than those aged 16 to 24 or 25 to 39 (85 percent of both these age groups approved).
 - ◆ There were also some rural/urban differences, with respondents living in rural areas less likely to approve (73 percent approved) than those living in metropolitan areas (83 percent).
 - ◆ There were also some differences depending on whether respondents identified positive or no positive impacts of the extension (92 percent approved and 74 percent approved respectively).
 - ◆ Just over one-half of respondents (52 percent) believed the extension to daylight saving had a personal impact on them, with 47 percent believing it had no impact on them.³
 - ◆ Just over one-half of all respondents (53 percent) also believed the extension had an impact on other people. Most notably, these *other people* were identified as being *farmers generally* (mentioned by 34 percent of respondents), *dairy farmers* (23

² Dairy farm population figures provided by Livestock Improvement Corporation (LIC).

³ One percent of respondents responded "Don't know" to this question.



percent), *everyone* (22 percent), *young children (12 years or younger)* (20 percent), and *shift workers* (14 percent).

- ◆ Respondents who believed the daylight saving extension had had a personal impact on them were more likely to say that these impacts were positive. Expressed as a proportion of the total sample, 31 percent of respondents claimed that *the impacts on them were all positive*, 5 percent claimed they were *all negative*, and 14 percent claimed the impacts were *both positive and negative*. About half (49 percent) believed the extension had neither a positive nor negative impact (including the 47 percent noted above who reported no personal impact at all).

- ◆ On an unprompted basis, the positive impacts more frequently identified included:
 - ◆ Positive comments about *more daylight hours in general* (34 percent of respondents who mentioned the extension had had a personal impact on them).
 - ◆ Positive comments about *liking and enjoying the extra daylight* (28 percent).
 - ◆ Positive comments about being able to do *more evening leisure activities* (19 percent).
 - ◆ Positive comments about being able to do *more gardening/lawns/outdoor work at home* (17 percent).
 - ◆ Positive comments about being able to do *more exercise, etc.* in the evening (13 percent).

- ◆ In contrast, the negative impacts more frequently identified on an unprompted basis included:
 - ◆ Negative comments about it *being too cold and dark in the morning* (17 percent of respondents who mentioned the extension had had a personal impact on them).
 - ◆ Negative comments about it being *harder to get up earlier in the morning* (10 percent).
 - ◆ Negative comments about it being *more difficult getting children to bed and asleep* (six percent).

- ◆ Almost all (93 percent) of the general public were aware that the daylight saving period had changed in the last year, before further prompting or questioning about this. While most people (58 percent) realised that it had *run for a longer period* in a general sense, fewer specifically noted that it had *started earlier than usual* (21 percent) or finished *later than usual* (34 percent).



- ◆ Dairy farmers:
 - ◆ Using the five-point approval scale, 82 percent of all dairy farmers approved of daylight saving in general, with 45 percent *strongly approving*. In contrast, 15 percent disapproved.
 - ◆ Just over one-half (54 percent) of dairy farmers approved of the extension to daylight saving. In contrast, 41 percent disapproved.
 - ◆ There were some differences by ownership status, with farm owners and managers less likely to approve (49 percent approved) than those farmers in other roles (e.g. share-milkers, farm assistants and employees) (63 percent).
 - ◆ There were also some differences based on age, with dairy farmers aged between 16 and 24 more likely to approve (73 percent) than those aged 60 years or more (18 percent), for example.
 - ◆ Reflecting this, there were also some differences by experience, with dairy farmers who had been farming for 30 or more years less likely to approve (31 percent approved) than those who had been farming for less than 10 years (65 percent), for example.
 - ◆ There were also some differences by herd size, with dairy farmers who had a herd size of less than 250 cows less likely to approve (48 percent approved) than those with a herd size of 400 or more cows (59 percent).
 - ◆ Just under one-half of dairy farmers (49 percent) believed the extension to daylight saving had a personal impact on them, although the same proportion (50 percent) believed it had no impact on them.⁴
 - ◆ Two-fifths (43 percent) of dairy farmers also believed the extension had an impact on other people. Most notably, these *other people* were identified as being *dairy farmers* (mentioned by 33 percent of dairy farmers), *farmers generally* (27 percent), *young children (12 years or younger)* (21 percent), *everyone* (19 percent) and *shift workers* (11 percent).

⁴ One percent of respondents responded "Don't know" to this question.



- ◆ Dairy farmers who believed the daylight saving extension had had a personal impact on them were more likely to say that these impacts were negative. Expressed as a proportion of the total sample of dairy farmers interviewed, 20 percent claimed that the impacts were *all negative*, 10 percent claimed that *the impacts on them were all positive*, and 18 percent claimed the impacts were *both positive and negative*. About half (52 percent) believed the extension had neither a positive nor negative impact (including the 50 percent noted above who reported no personal impact at all).

- ◆ On an unprompted basis, the positive impacts more frequently identified included:
 - ◆ Positive comments about *more daylight hours in general* (18 percent of respondents who mentioned the extension had had a personal impact on them).
 - ◆ Positive comments about *liking and enjoying the extra daylight* (16 percent).
 - ◆ Positive comments about being able to do *more evening leisure activities* (12 percent).
 - ◆ Positive comments about *having longer days to do more work* (nine percent).

- ◆ In contrast, the negative impacts more frequently identified on an unprompted basis included:
 - ◆ Negative comments about it being *too cold and dark in the morning* (47 percent of respondents who mentioned the extension had had a personal impact on them).
 - ◆ Negative comments about it being *hard to get up earlier in the morning* (15 percent).
 - ◆ Negative comments about *leaving for work in the dark* (10 percent).
 - ◆ Negative comments about it being *more difficult getting children to bed and asleep* (nine percent).
 - ◆ Negative comments about *dairy/milk production disrupted* (nine percent).

- ◆ Almost all (97 percent) of dairy farmers were aware that the daylight saving period had changed in the last year, before further prompting or questioning about the extension. Dairy farmers were as likely as the general public to know that daylight saving had *run for a longer period* generally (53 percent), although again fewer specifically reported that it had *started earlier than usual* (37 percent) or finished *later than usual* (38 percent).



Conclusions

Based on the results of this survey, it can be concluded that both the general public and the dairy farming community in New Zealand approve of the extension to daylight saving.

At 82 percent approval for the general public, this is a very high rate of approval. While the approval rating for dairy farmers is significantly higher than the disapproval rating (54 percent and 41 percent respectively), this result is more marginal and other factors might need to be taken into consideration (e.g. the proportion who felt they had been impacted by the extension and/or the nature of those impacts, and the extent to which they approve of daylight saving in general).

Table 1: Key results – General public and dairy farmers samples

	General Public Total n=1006 %	Dairy Farmers Total n=494 %
Approval of daylight saving and extension		
Daylight saving generally		
Approve	90↑	82
Disapprove	6	15↑
Extension		
Approve	82↑	54
Disapprove	11	41↑
Perceived impacts of extension		
Impact on self	52	49
Impact on others	53↑	43
No impact on self <u>or</u> others	33	41↑
Others impacted:*		
Farmers generally	34	27
Dairy farmers	23	33
Everyone	22	19
Young children (12 years or younger)	20	21
Shift workers	14	11

Significant differences between samples in this table are represented by ↑ symbols, where the result for one sample is significantly higher than for the other sample.

* Based on respondents who reported that the daylight saving extension had an impact on others (n=526 general public, n=218 dairy farmers).



Table1 (continued): Key results – General public and dairy farmers samples

	General Public Total	Dairy Farmers Total
Indicator	n=1006 %	n=494 %
<u>Perceived impacts of extension (continued)</u>		
<u>Positive impacts for self (unprompted)*</u>		
<i>Mentioned <u>at least one</u> positive impact (net measure)</i>	88↑	58
More daylight hours generally	34↑	18
Like it / enjoyed the extra daylight	28↑	16
Did more evening leisure activities	19↑	12
<i>No positive impacts</i>	12	42↑
<u>Positive impacts for self (prompted)</u>		
<i>Mentioned <u>at least one</u> positive impact (net measure)</i>	95↑	90
Did more evening leisure activities	72↑	60
Used less electricity or power	69↑	53
Did more outdoor activities at home	67↑	61
<i>No positive impacts</i>	5	10↑
<u>Negative impacts for self (unprompted)*</u>		
<i>Mentioned <u>at least one</u> negative impact (net measure)</i>	50	78↑
Too cold / dark in morning	17	47↑
Harder to get up earlier in morning	10	15
Left for work in darkness	1	10↑
<i>No negative impacts</i>	50↑	22
<u>Negative impacts for self (prompted)</u>		
<i>Mentioned <u>at least one</u> negative impact (net measure)</i>	48	63↑
Had more difficulty getting up in the morning	28	39↑
Even more difficult to adjust when clocks went back	15	22↑
More difficulty getting children up in morning (parents)	16	27↑
<i>No negative impacts</i>	52↑	37
<u>Awareness of extension</u>		
Aware that daylight saving changed this year	93	97↑
Ran for longer period	58	53
Started earlier than usual	21	37↑
Finished later than usual	34	38

Significant differences between samples in this table are represented by ↑ symbols, where the result for one sample is significantly higher than for the other sample.

* Based on respondents who reported that the daylight saving extension had an impact on themselves (n=507 general public, n=246 dairy farmers).



2.0 Introduction

This section provides a detailed introduction to the survey of the general public and dairy farmers, including the background and objectives of the research, the methodology used, and a profile of the samples achieved.

2.1 Background

Historically, the number of daylight saving hours has generated much public debate in New Zealand. New Zealand trialed a period of daylight saving in 1927; when clocks went forward an hour. The period was extended in 1928, but clocks went forward by only a half hour instead of an hour. This continued until 1941 when the period of daylight saving was extended by emergency regulations to cover the whole year, which was made the permanent standard time in 1946. Daylight saving was subsequently re-introduced in 1975 and lasted from the last Sunday in October through until the first Sunday in March. The New Zealand Daylight Time Order 1990 extended daylight saving so that it ran from the first Sunday in October each year until the third Sunday in March of the following year. At the end of daylight saving in 2006, a petition to further extend daylight saving was presented to Parliament with an estimated 42,000 signatures. This led to a review of the period and, as a result, the Government decided to extend daylight saving in 2007, to a 27-week period.⁵ Clocks went forward one hour on the last Sunday in September 2007 (a week earlier than in previous years) and went back an hour on the first Sunday of April 2008 (instead of the third Sunday in March).⁶

When he announced the extension of daylight saving hours, the Minister of Internal Affairs, Hon. Rick Barker, also said the Government would monitor the effect of New Zealand's extended period of daylight saving on the country, including parts of the economy, to see if there were any significant benefits.

As a result, Research New Zealand has been commissioned by the Department of Internal Affairs to measure the perceived impact of the extended daylight saving period among the general public and dairy farmers. It was decided to focus more specifically on dairy farmers (rather than other types of farmers) as the nature of their work means that they are most likely to be affected by daylight saving and any extension to it. A survey commissioned in 1985 by the Department found that, of all farming types, dairy farmers reported more negative impacts on themselves. Consequently it was decided to focus particularly on dairy farmers in this survey. Also, the department recently communicated with organisations representing farmers indicating that farming communities' attitudes to daylight saving may have changed. The Department wished to investigate this further.

⁵ Although in rare circumstances the period will be 28 weeks in length. This will first happen in 2023-24.

⁶ For more information see http://www.dia.govt.nz/diawebsite.nsf/wpg_URL/Resource-material-Information-We-Provide-About-Daylight-Saving?OpenDocument



2.2 Objectives

Note that the objective of this research is not to measure the public's attitude towards daylight saving per se, but rather their attitudes to and the perceived impact of the extended period of daylight saving. This survey was specifically focused on members of the general public and dairy farmers.

More specifically, the research was designed to measure:

- ◆ What peoples' attitudes and beliefs were towards the extended daylight saving period, and whether they approved or disapproved of the extension.
- ◆ What (if any) impact the extended daylight saving period had on people and their everyday lives, particularly in relation to their household, work and recreation patterns.
- ◆ Whether or not the general public and dairy farmers were aware that the daylight saving period has been extended.

2.3 Methodology

A telephone survey was conducted with randomly selected, nationally representative samples of the general public and dairy farmers.

Potential respondents for the survey were randomly selected from the electoral roll. Dairy farmers in particular were identified from the occupation field in the electoral roll. Prior to the survey commencing, households were sent a pre-notification letter outlining the purpose of the research, how they were selected, and providing the opportunity to contact Research New Zealand for further information, to arrange an interview appointment, or to be removed from the contact list.

Respondents in the general public sample were randomly selected from within the pre-notified households by asking for the person aged 16 years or older who had the next birthday. Within the dairy farmers sample, the person identified from the electoral roll as a dairy farmer was considered the eligible respondent – this was confirmed through screening questions, and the survey terminated if the respondent did not self-identify as a dairy farmer.

Quotas were set for the general public and dairy farmer samples respectively. Within these samples, independent quotas were also set by the region in which respondents lived (defined as North, Central, and South – see Section 2.4 below for further details).

Interviews were completed by telephone between 8 and 29 April 2008 (i.e. following the end of the daylight saving period). At the completion of interviewing, a total sample of n=1500 had been interviewed, including:



- ◆ n=1006 interviews with the general public, including n=376 respondents in the North, n=386 respondents in the Central region, and n=244 respondents in the South.⁷
- ◆ n=494 interviews with dairy farmers, including n=200 farmers in the North, n=194 farmers in the Central region, and n=100 farmers in the South.

The response rate for the survey was 53 percent overall, which is higher than normal for a telephone survey of this type.⁸

Results for the general public sample have been weighted by 2006 Census population counts to reflect age and population distributions in the North, Central and South regions. The maximum margin of error for the (weighted) total sample of n=1006 general public respondents is ± 3.6 percent, at the 95 percent level of confidence.^{9 10} As shown in Table 2 (page 16), margins of error are higher for smaller subgroups of the general public, and for differences between subgroups.

Results for the dairy farmers sample have been weighted by 2006-07 dairy farm herd counts to reflect the population distributions of farms in the North, Central and South regions.¹¹ The maximum margin of error for the (weighted) total sample of n=494 dairy farmers is ± 4.5 percent, at the 95 percent level of confidence.¹⁰ As for the general public sample, and as shown in Table 3 (page 17), margins of error are higher for smaller subgroups of dairy farmers, and for differences between subgroups.

2.4 Analysis

For the purposes of analysis and reporting, the results for the survey were cross-tabulated by a range of variables, as outlined below. Differences between subgroups have only been reported where these are statistically significant (at the 95 percent level of confidence).

- ◆ The following subgroups were analysed for the general public sample:
 - ◆ Region: North, Central and South.

⁷ Note that the general public sample included some farmers of various types, but excluded dairy farmers specifically.

⁸ The response rate calculation method used is an internationally recognised standard, approved by the American Association of Public Opinion Researchers. The calculation first takes into account the rate of eligible contacts as a proportion of all eligible and ineligible contacts; then calculates an estimate of eligible non-respondents among those of unknown eligibility; then calculates the response rate as the number of interviews completed as a proportion of all eligible and estimated eligible contacts.

⁹ The maximum margin of error (at the 95 percent confidence level) provides the range around the reported percentage which is likely to include the true percentage for the population of interest, assuming a normal sample distribution. In other words, one is 95 percent confident that the "true" percentage is within the plus/minus range quoted, given a survey sample of the size in question.

¹⁰ The weighting used in this survey means that the actual margin of error is slightly higher than the conventional calculation.

¹¹ Dairy farm population figures provided by Livestock Improvement Corporation (LIC).



Region was identified from the Territorial Local Authority (TLA) identifier in the electoral roll. Northern respondents were drawn from the Northland, Auckland, Waikato, Bay of Plenty, and Gisborne regions; Central respondents were drawn from the Hawke's Bay, Taranaki, Manawatu, Wanganui, Wellington, Tasman, Nelson, Marlborough, and West Coast regions; Southern respondents were drawn from the Canterbury, Otago, and Southland regions. This regional split was chosen as sunrise and sunset times vary by latitude and the extension may have had different impacts at different latitudes.

- ◆ Area of residence: Rural (under 1,000 population), Provincial (small towns with 1,000 to 9,999 population, and medium-sized towns with 10,000 to 29,999 population), and Metropolitan (large towns and cities with 30,000 or higher population). This was chosen because the main occupations and activities in these areas can be quite different, particularly so for rural and metropolitan areas. The extension might have been expected to have different impacts in these areas.
- ◆ Households with children aged 15 years or younger, compared to households without children aged 15 years or younger. This subgroup is to determine if there are differences in attitudes towards the extension for families with young children who might have been expected to face difficulties in adjusting to the apparent changes in light.
- ◆ Age: 16 to 24 year olds, 25 to 39 year olds, 40 to 59 year olds, and those aged 60 years or older.
- ◆ The following subgroups were analysed for the dairy farmers sample:
 - ◆ Region: North, Central and South.

Region was identified from the Territorial Local Authority (TLA) identifier in the electoral roll, with the same regional divisions as for the general public sample above.

- ◆ Age: 16 to 24 year olds, 25 to 39 year olds, 40 to 59 year olds, and those aged 60 years or older.
- ◆ Years of farming experience: less than 10 years, 10 to 19 years, 20 to 29 years, 30 years or more.
- ◆ Size of farm (as defined by herd size): small (less than 250 cows), medium (250 to 399 cows), and large (400 or more cows).
- ◆ Role of farmer: Farm owners and managers, compared to other farm workers (share-milkers, other farm assistants/employees).

Note that several of these variables are co-related with each other to some degree. Not surprisingly, the strongest relationship is between the age of farmers and years of farming experience. However, for simplicity of analysis and reporting, these variables have been reported on separately.



Note also that throughout the report there may be cases where reported percentages do not sum exactly to 100 percent or some other summed percentage. This may be for a number of reasons:

- ◆ Rounding of percentages.
- ◆ Some response options not being reported (e.g. “don’t know” or “refused” options).
- ◆ A list of multiple response options where only the most frequently mentioned responses have been reported.



2.5 Sample profile

Profiles of the general public and dairy farmers samples are provided in Table 2 and Table 3 below, in the form of unweighted frequency counts (i.e. the actual numbers of respondents surveyed). These tables also provide the maximum margins of error for specific subgroups of respondents.

Note that differences between subgroups are only reported on when these are statistically significant. Also, results for subgroups with small base sizes (less than n=30) are indicative only, and cannot be tested for statistical significance.

Table 2: Demographic profile and maximum margins of error for the general public sample

	General Public Base=1006	
	n= (unweighted)	Maximum margin of error
Age		
16-24	226	± 7.6%
25-39	237	± 7.4%
40-59	244	± 7.3%
60+	299	± 6.6%
Region		
Northern	376	± 5.9%
Central	386	± 5.8%
Southern	244	± 7.3%
Household		
Has child	502	± 5.1%
Does not have child	504	± 5.1%
Area*		
Rural area	91	± 12.0%
Provincial area	284	± 6.8%
Metropolitan area	621	± 4.6%
Employment		
Self employed	127	± 10.2%
A salary or wage earner	492	± 5.2%
Other	446	± 5.4%
Education*		
No qualifications	143	± 9.6%
NCEA, School Certificate, or other secondary school qualification	370	± 6.0%
Polytechnic qualification or Trade Certificate	254	± 7.2%
University degree	224	± 7.7%
Other	4	na
Gender		
Male	510	± 5.1%
Female	496	± 5.1%

* Note: May not sum to n=1006 due to exclusion of "don't know" and/or "refused" responses.



Table 3: Demographic profile and maximum margins of error for the dairy farmer sample

	Dairy Farmers Base=494	
	n= (unweighted)	Maximum margin of error
Age		
16-24	44	± 15.4%
25-39	200	± 7.2%
40-59	221	± 6.9%
60+	29	na
Region		
Northern	200	± 7.2%
Central	194	± 7.3%
Southern	100	± 10.2%
Household		
Has child	337	± 5.6%
Does not have child	157	± 8.1%
Area*		
Rural area	367	± 5.3%
Provincial area	114	± 9.5%
Metropolitan area	10	na
Employment		
Self employed	376	± 5.3%
A salary or wage earner	114	± 9.5%
Other	15	na
Education*		
No qualifications	87	± 10.9%
NCEA, School Certificate, or other secondary school qualification	200	± 7.2%
Polytechnic qualification or Trade Certificate	144	± 8.5%
University degree	59	± 13.3%
Other	1	na
Gender		
Male	343	± 5.5%
Female	151	± 8.3%
Farming role		
Farm owner or manager	338	± 5.5%
Other	156	± 8.2%
Farming experience		
Less than 10 years	133	± 8.8%
10 - 19	133	± 8.8%
20 - 29	116	± 9.5%
30 plus	112	± 9.6%
Largest herd size*		
Less than 250	148	± 8.4%
250 - 399	135	± 8.8%
400 plus	204	± 7.1%

* Note: May not sum to n=494 due to exclusion of "don't know" and/or "refused" responses.



2.6 Report structure

The key findings from this research are divided into three inter-related sections, following the lines of questioning covered in the survey questionnaire. In a general sense, these sections represent the key areas of information necessary to measure the effect of a population-level 'event', change, or social intervention of the kind represented by the daylight saving extension. The three sections are briefly described below:

- ◆ Section 3: Approval of daylight saving and the extension.

The Department wanted to understand whether the public supported the extension after they had actually experienced it. Also the Department believes that measuring the public's approval may provide a useful guide for future decision-making.

Respondents were asked to indicate the degree of their approval or disapproval of daylight saving and the extension after they had been given an opportunity to consider the positive and negative impacts the extension had on them.

- ◆ Section 4: Perceived impacts of the extension.

The Department wanted to understand how extending daylight saving affected New Zealanders. In particular, whether there were groups of New Zealanders more affected than others by the extension, whether the extension provided the public benefits its supporters expected, what those benefits were, and whether there were any unintended negative consequences of the extension.

Respondents were asked about both positive and negative impacts of the extension, on both an unprompted and prompted basis. An unprompted approach allows respondents to provide open and spontaneous responses to a question, and therefore represents the most genuine measure of what is consciously important or relevant to a respondent.

Respondents were also asked to identify on an unprompted basis which (if any) particular groups of the population they believed would be more affected than others by the extension.

- ◆ Section 5: Awareness of the extension.

Before asking in-depth questions about the impact and approval of the extension, it was necessary to establish whether respondents were aware of the extension, and what knowledge they held about the extension (i.e. if they knew the extent of the extension). Given that all interviewing was conducted following the end of the extended daylight saving period, awareness of the extension was expected to be high. However, it was still useful to know how informed respondents were about the nature of the extension.

Note that all respondents were given a precise explanation about the extension prior to questions about the impact this had on them.



3.0 Approval of daylight saving and the extension

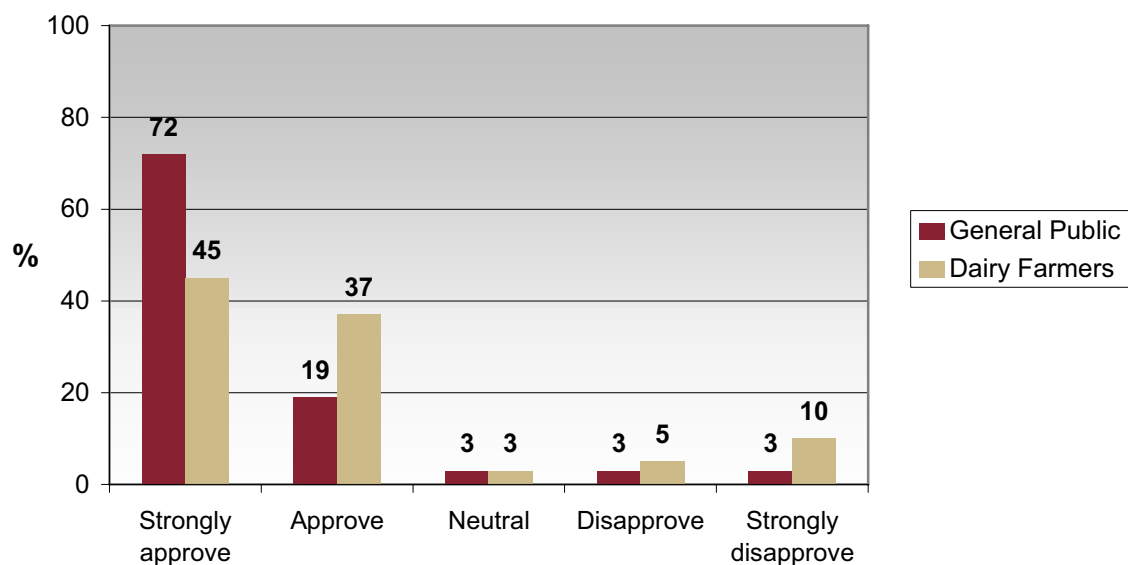
This section summarises the findings related to general public and dairy farmer approval of both daylight saving generally, and the recent extension specifically.

Overall, the majority of both the general public and dairy farmers approve of daylight saving in general. However, while approval for the extension is high among the general public, dairy farmers are polarised in their approval of the extension.

3.1 Approval of daylight saving

Approval for the concept of daylight saving generally – without consideration of the recent extension - is very high across both general public and dairy farmer audiences. In fact, most people *strongly approve* of the concept.

Figure 1: Approval of daylight saving in general





3.1.1 General public

As the following results indicate, most general public respondents approved of daylight saving in general:

- ◆ Almost all respondents (90 percent) approved of daylight saving to some degree, including 19 percent who *approved* and 72 percent who *strongly approved*.¹²
- ◆ In contrast, only 6 percent disapproved at all (with 3 percent *disapproving* and 3 percent *strongly disapproving*).

There were few differences in approval of daylight saving among subgroups of the general public. However, while approval was universally high, significant differences were observed:

- ◆ The majority of older adults approved of daylight saving, although they were less likely than younger adults to approve. Specifically, those aged 60 years or more were less likely than those aged 25 to 39 to approve overall (85 percent compared to 94 percent), and less likely to strongly approve (69 percent compared to 78 percent).
 - ◆ In addition, while 16 to 24 year olds were equally likely as others to approve of daylight saving overall (91 percent), they were least likely to strongly approve (56 percent).
- ◆ Not surprisingly, those who identified positive impacts of the extension were more likely to approve of daylight saving overall (97 percent). However, even those who identified no positive impacts of the extension were overwhelmingly in favour of daylight saving (85 percent).

3.1.2 Dairy farmers

Reflecting the general public findings, most dairy farmers also approved of daylight saving generally. Again, many *strongly approved* of the concept, although less so than the general public:

- ◆ The majority of dairy farmers (82 percent) approved of daylight saving to some degree, including 37 percent who *approved* and 45 percent who *strongly approved*.
- ◆ In contrast, 15 percent disapproved to some degree (with 5 percent *disapproving* and 10 percent *strongly disapproving*).

While approval of daylight saving in general was very high among dairy farmers overall, the following significant differences were observed:

- ◆ While farmers with a large herd size (of 400 or more cows) were equally likely as other farmers to approve of daylight saving overall (85 percent), they were more likely to *strongly*

¹² Note that the 19 percent *approval* and 72 percent *strongly approved* do not add strictly to 90 percent because of rounding.



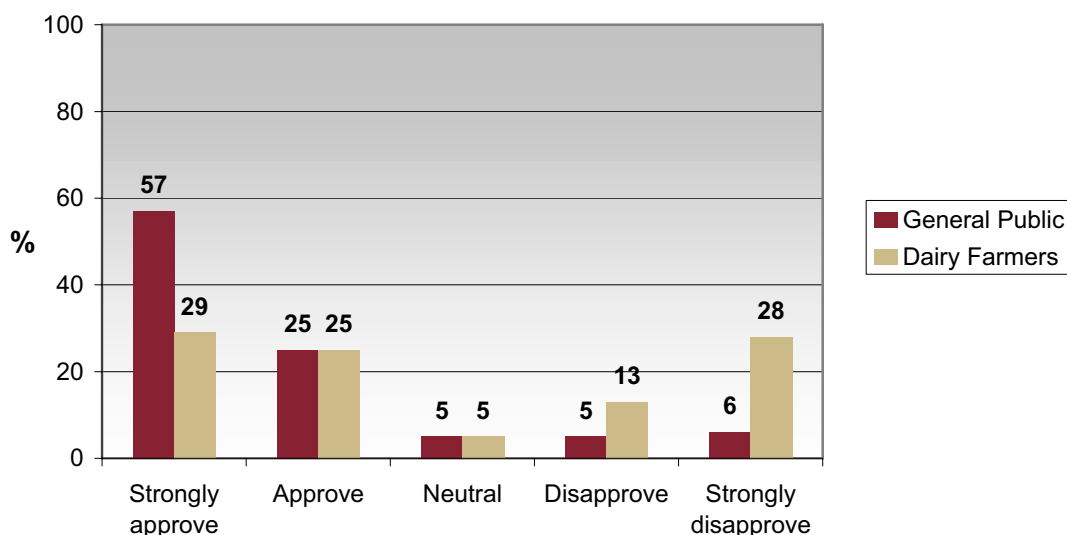
approve of the concept (50 percent, compared to 37 percent of farmers with a small herd size of less than 250 cows).

- ◆ More experienced farmers (as determined by number of years farming) were less likely to approve of daylight saving overall (69 percent of those farming for 30 or more years, compared to 83 percent farming for 20 to 29 years, 88 percent farming for 10 to 19 years, and 86 percent farming for less than ten years). Those farming for more than 30 years were also less likely than dairy farmers overall to strongly approve of the concept (25 percent).
- ◆ While younger farmers (aged 16 to 24) were no less likely to approve of daylight saving overall (78 percent), they were significantly less likely than some older adults to *strongly approve* (28 percent, compared to 56 percent of 25 to 39 year olds).
- ◆ Farmers who identified positive impacts of the extension were more likely to approve of daylight saving overall (90 percent compared to 78 percent who identified no positive impacts of the extension).

3.2 Approval of the extension

Approval for the daylight saving extension is also very high, at least among the general public. While many dairy farmers also approve of the extension, approval is actually polarised among this group.¹³

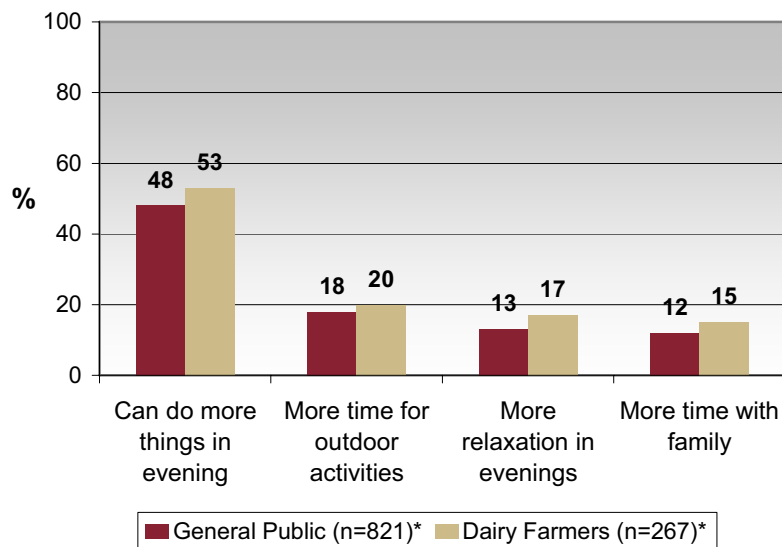
Figure 2: Approval of the extension to daylight saving



¹³ Note that respondents who were initially unaware of the daylight saving extension were explicitly made aware of this in subsequent questioning before being asked for their approval or disapproval rating. All respondents were informed of the exact timing of the extension before being asked for their beliefs about the impacts of the extension.

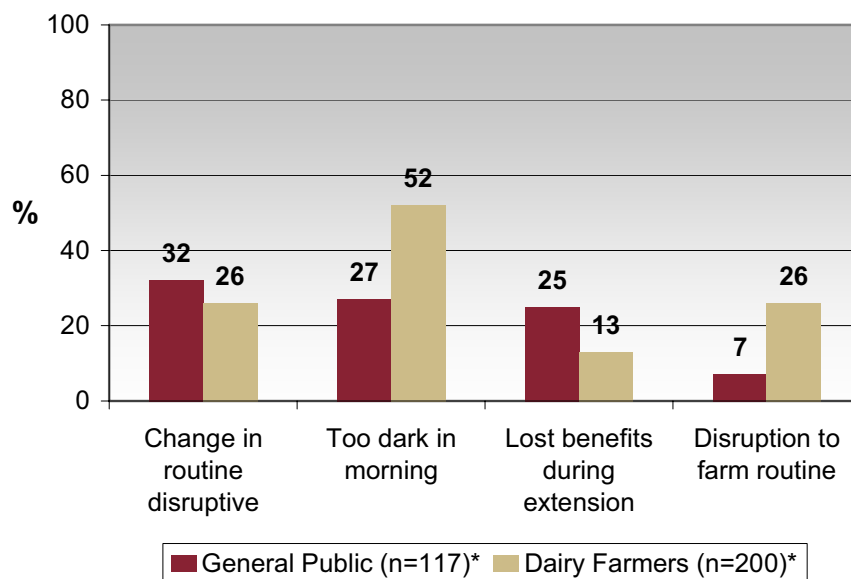


Figure 3: Reasons for approval of the extension to daylight saving (most frequently mentioned) (unprompted)



* Based on subsample of respondents who approved of the extension to daylight saving.

Figure 4: Reasons for disapproval of the extension to daylight saving (most frequently mentioned) (unprompted)



* Based on subsample of respondents who disapproved of the extension to daylight saving.



3.2.1 General public

Most general public respondents approved of the extension to daylight saving, as indicated by the following results:

- ◆ Overall, four-fifths (82 percent) of general public respondents approved of the extension, (including 25 percent who *approved* and 57 percent who *strongly approved*).
- ◆ In contrast, 11 percent disapproved to some degree (with 5 percent *disapproving* and 6 percent *strongly disapproving*).

Again, there were few differences in approval of the extension between subgroups of the general public, although the following significant differences were observed:

- ◆ While the majority of those in rural areas approved of the extension overall (73 percent), they were less likely than those in metropolitan areas to *strongly approve* (43 percent compared to 60 percent).
- ◆ While the majority of older adults (aged 60 or more) approved of the extension overall (77 percent), they were less likely than younger adults to approve (compared to 85 percent of those aged 16 to 24 and 25 to 39 respectively).
 - ◆ However, 16 to 24 year olds were again least likely to *strongly approve* (44 percent).
- ◆ Again not surprisingly, those who identified positive impacts of the extension were more likely to approve of the extension overall (92 percent, compared to 74 percent who identified no positive impacts of the extension). In addition, three-quarters (74 percent) of those with positive impacts *strongly approved* of the extension (compared to 44 percent with no positive impacts).

Respondents provided a range of reasons for either approving or disapproving of the extension to daylight saving:

- ◆ The most frequently mentioned reasons provided by those who approved of the extension included the following:
 - ◆ *Can do more things in the evening* (48 percent overall).
 - ◆ More likely for 16 to 24 year olds than for older adults (62 percent, compared to 43 percent of 40 to 59 year olds and 41 percent of those 60 years or more).
 - ◆ *More time for outside activities / work at home* (18 percent overall).
 - ◆ *More relaxation time in the evenings* (13 percent overall).
 - ◆ *More time to spend with children / family* (12 percent overall).



- ◆ More likely for 25 to 39 year olds (21 percent).
- ◆ More likely for those living in metropolitan areas than for those in rural areas (14 percent compared to six percent).
- ◆ As expected, more likely for those in families with children than for other people (25 percent compared to seven percent).
- ◆ The most frequently mentioned reasons provided by those who disapproved of the extension included the following:
 - ◆ *Change in routine is disruptive* (32 percent overall).
 - ◆ *Too dark in the morning / harder to get up in the dark* (27 percent overall).
 - ◆ *Lost its usefulness / benefits during the extension* (25 percent overall).
 - ◆ *Disruption to farm / stock routine* (seven percent overall).

3.2.2 Dairy farmers

In contrast to the general public, dairy farmers were divided in their approval of the daylight saving extension. Nevertheless, many did approve of the extension:

- ◆ Over half (54 percent) of all dairy farmers approved of the extension (including 25 percent who *approved* and 29 percent who *strongly approved*).
- ◆ However, two-fifths (41 percent) of dairy farmers disapproved of the extension (including 13 percent who *disapproved* and 28 percent who *strongly disapproved*).

Some farmers were more approving of the extension than others, as the following differences indicate:

- ◆ Farm owners and managers were less likely to approve of the extension overall than were farmers in other roles (e.g. share-milkers or other farm assistants and employees) (49 percent and 63 percent, respectively).
- ◆ More experienced dairy farmers were less likely to approve (31 percent of those farming for 30 or more years, compared to 51 percent farming for 20 to 29 years, 64 percent farming for 10 to 19 years, and 65 percent farming for less than ten years).
- ◆ Older farmers were less likely to approve of the extension than were younger farmers (18 percent aged 60 or more, 47 percent aged 40 to 59, compared to 62 percent aged 25 to 39, and 73 percent aged 16 to 24).



- ◆ Farmers with a large herd size of 400 or more cows were more likely to approve than were those with a small herd size of less than 250 cows (59 percent compared to 48 percent).

Dairy farmers provided a range of reasons for either approving or disapproving of the extension to daylight saving, as summarised below.

- ◆ The most frequently mentioned reasons provided by dairy farmers who approved of the extension included the following:
 - ◆ *Can do more things in the evening* (53 percent overall).
 - ◆ More likely for farmers in the North than for those in the Central or South regions (62 percent, 43 percent, and 41 percent, respectively).
 - ◆ More likely for those farming for 10 to 19 years than for those farming for 20 to 29 years or 30 or more years (64 percent, 43 percent, and 39 percent, respectively).
 - ◆ *More time for outside activities / work at home* (20 percent overall).
 - ◆ More likely for 25 to 39 year olds than for younger adults and older adults (26 percent, compared to 11 percent of 16 to 24 year olds and 15 percent of 40 to 59 year olds).
 - ◆ *More relaxation time in the evenings* (17 percent overall).
 - ◆ *More time to spend with children / family* (15 percent overall).
- ◆ The most frequently mentioned reasons provided by dairy farmers who disapproved of the extension included the following:
 - ◆ *Too dark in the morning / harder to get up in the dark* (52 percent overall).
 - ◆ *Disruption to farm / stock routine* (26 percent overall).
 - ◆ More likely for farmers in the Central region than for those in the North (38 percent compared to 21 percent).
 - ◆ More likely for more experienced than for the least experienced farmers (35 percent of those farming for 30 or more years compared to 17 percent of those farming for less than ten years).
 - ◆ *Change in routine is disruptive* (19 percent overall).



- ◆ *Lost its usefulness / benefits during the extension* (13 percent overall).
 - ◆ More likely for 40 to 59 year olds than for 25 to 39 year olds (17 percent compared to three percent).
 - ◆ Less likely for those farming for less than ten years than for those farming for 20 to 29 years (four percent compared to 19 percent).



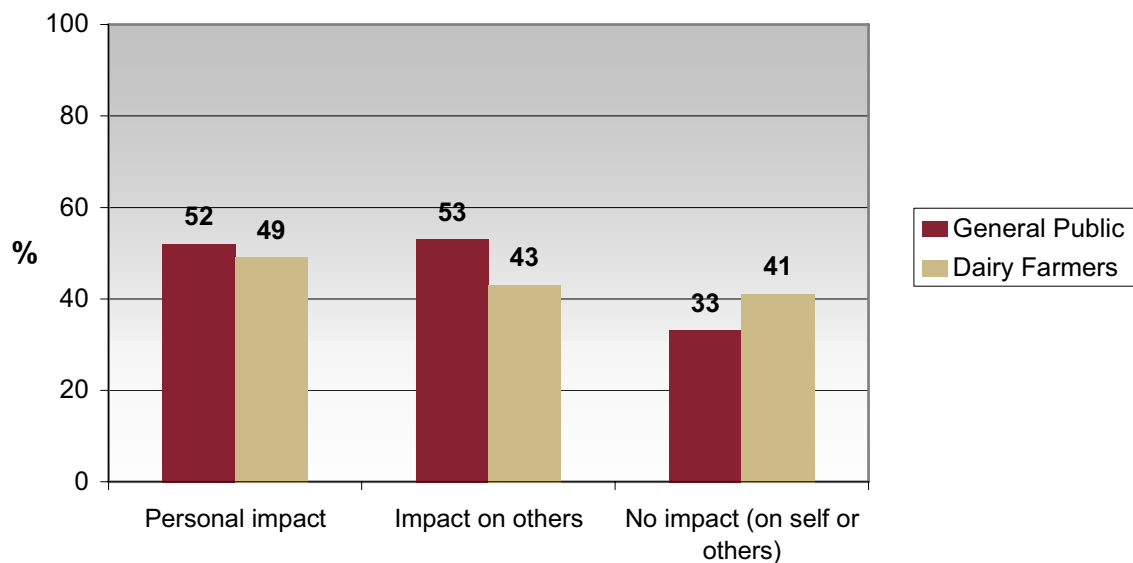
4.0 Perceived impacts of the extension

This section outlines results related to perceived impacts of the extension, including the degree to which people believe it has impacted on themselves and others, who in the population they believe have been most affected by the extension, and what positive and negative impacts people have experienced personally.

4.1 Perceived impacts on self and others

Respondents were asked whether they believed the extension to daylight saving had an impact on themselves and/or other types of people in the population. While many believed there had been impacts on themselves or others, substantial proportions of both the general public and dairy farmers believed there had been no particular impact on either themselves or others.

Figure 5: Perceived impact of the extension to daylight saving



4.1.1 General public

- ◆ Approximately half of the general public believed that the extension had an impact on *themselves personally* (52 percent). A similar proportion (53 percent) believed it had an effect on *other people*.
- ◆ However, one-third (33 percent) believed the extension had no impact on either themselves or others.



Notable differences in this regard between subgroups of the general public included the following:

- ◆ People in the Central region were more likely than those in the South to believe the extension had an impact on themselves (55 percent compared to 44 percent). In fact, those in the South were most likely to believe the extension had no particular impact on themselves *or* others (40 percent, compared to 31 percent in the North and 30 percent in the Central region).
- ◆ Those aged 16 to 24 were less likely than those aged 40 to 59 to believe the extension had an impact on themselves (44 percent compared to 56 percent).
- ◆ People in rural areas were more likely than those in provincial areas to believe the extension had an impact on themselves (60 percent compared to 45 percent). Those in metropolitan areas were more likely than those in provincial areas to believe the extension impacted on other types of people (56 percent compared to 43 percent). However, people in provincial areas were most likely to believe it had no particular impact on themselves *or* others (40 percent).

4.1.2 Dairy farmers

- ◆ Just under half of the dairy farmers believed that the extension had an impact on *themselves personally* (49 percent), and/or on *other people* (43 percent).
- ◆ However, a similar proportion (41 percent) believed the extension had no impact on themselves *or* others.

There were few differences in this regard between subgroups of dairy farmers, except for the following:

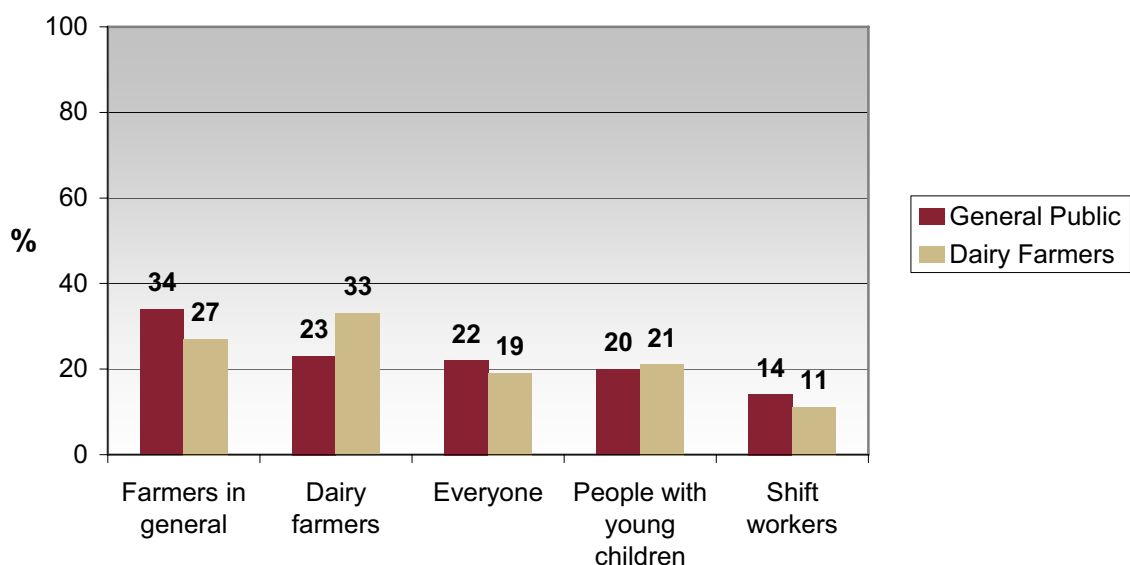
- ◆ Farmers with less than ten years experience were more likely than those farming for 30 or more years to believe the extension had no particular impact (47 percent compared to 34 percent).



4.2 Population groups perceived to be impacted by the extension

Those who believed that the extension had an impact on particular types of people in the population were asked to identify which groups or types of people these were. Overall, both the general public and dairy farmers were most likely to identify farmers as being affected by the extension, although a range of other population groups were also identified.

Figure 6: Specific groups believed to be most affected



4.2.1 General public

Among the 53 percent of the general public who believed other types of people had been affected by the extension, the following population groups were most frequently identified as being affected:

- ◆ *Farmers generally* (34 percent overall).
 - ◆ More likely for older adults (39 percent aged 60 or more, and 38 percent aged 40 to 59, compared to 23 percent aged 16 to 24).
- ◆ *Dairy farmers* (23 percent).
 - ◆ More likely for older adults (34 percent aged 60 or more, compared to 24 percent aged 40 to 59, 21 percent aged 25 to 39, and 12 percent aged 16 to 24).
- ◆ *Everyone* (22 percent).



- ◆ *People with young children (12 years or younger)* (20 percent).
 - ◆ Less likely for younger adults (6 percent aged 16 to 24, compared to 25 percent aged 25 to 39, 20 percent aged 40 to 59, and 24 percent aged 60 or older).
- ◆ *Shift workers* (14 percent).
 - ◆ More likely for those living in metropolitan areas than in rural areas (17 percent compared to six percent).

4.2.2 Dairy farmers

Among the 43 percent of dairy farmers who believed other types of people had been affected by the extension, the following population groups were most frequently identified as being affected:

- ◆ *Dairy farmers* (33 percent overall).
 - ◆ More likely for farmers with 30 or more years experience than for those farming for 20 to 29 years (43 percent compared to 23 percent).
 - ◆ More likely for farmers with medium-sized herds (250 to 399 cows) than for those with smaller herds (43 percent compared to 26 percent).
- ◆ *Farmers generally* (27 percent).
- ◆ *People with young children (12 years or younger)* (21 percent).
 - ◆ Less likely for less experienced farmers (8 percent farming for less than ten years, compared to 28 percent of those farming for 10 to 19 years, 20 percent of those farming for 20 to 29 years, and 29 percent of those farming for 30 or more years).
- ◆ *Everyone* (19 percent).
- ◆ *Shift workers* (11 percent).
 - ◆ More likely for those farming for 20 to 29 years than for those farming for more than 30 years (16 percent compared to three percent).



4.3 Personal impacts of the extension

Respondents who believed that the daylight saving extension had had an impact on themselves personally were asked to specify in what ways they had been affected, in terms of both positive and negative impacts. Questions related to these impacts were asked in both an unprompted and prompted manner.

Applicable findings for both the general public and dairy farmers are presented below.

Figure 7: Personal impacts of the extension (unprompted)

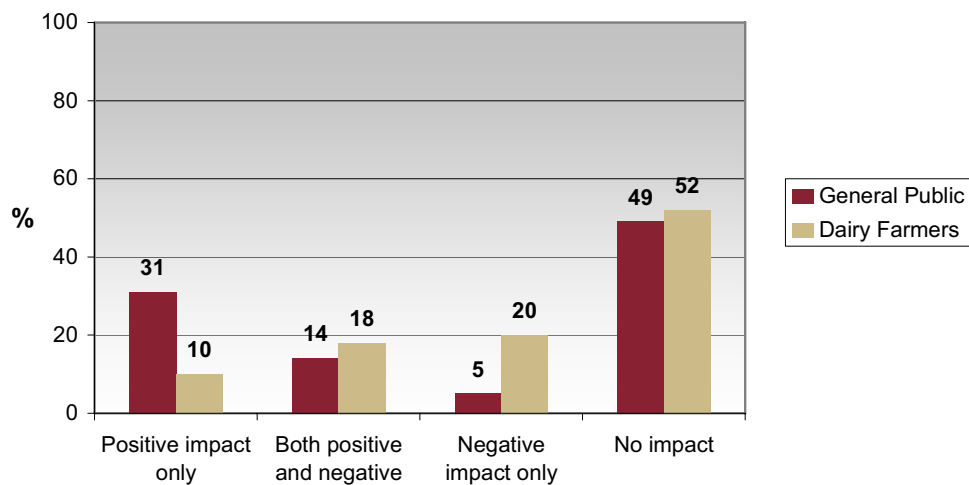
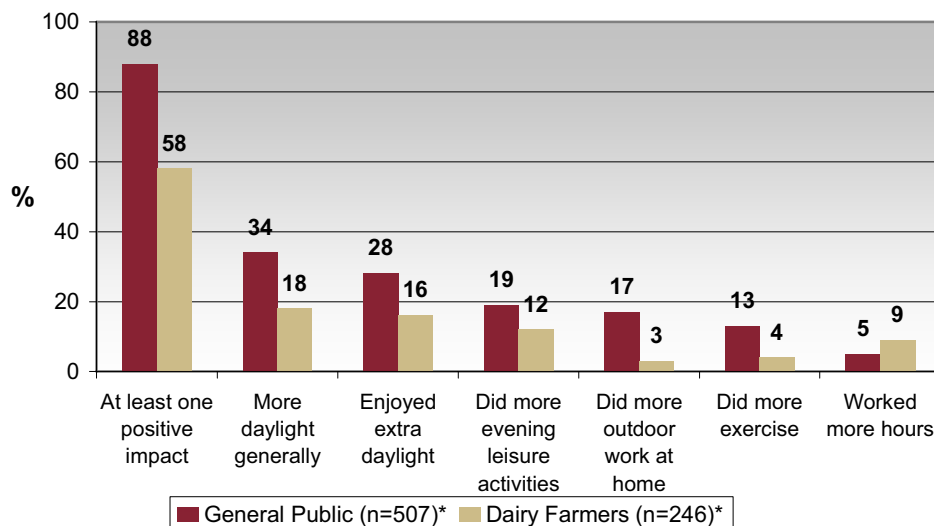


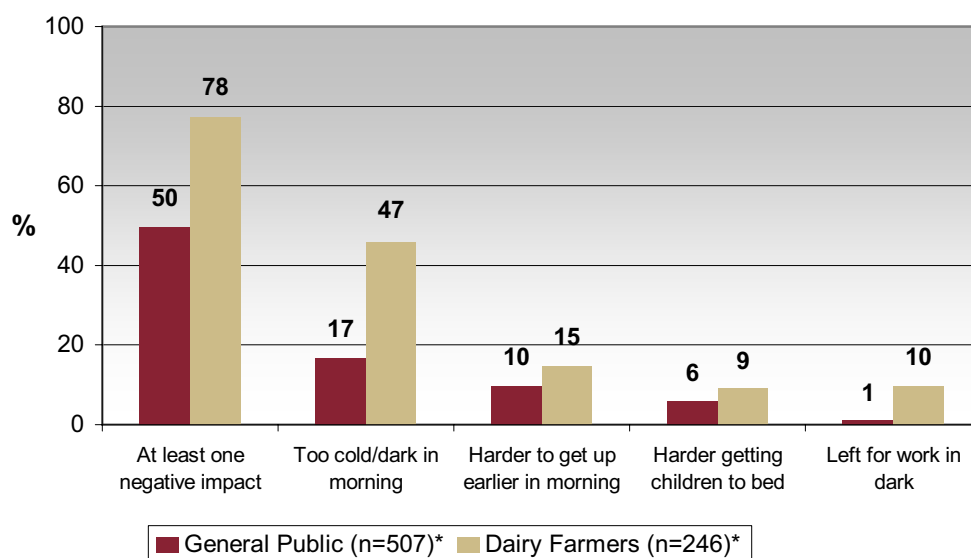
Figure 8: Perceived positive impacts of the extension (most frequently mentioned) (unprompted)



* Based on subsample of respondents who reported they had been personally affected by the extension to daylight saving.



Figure 9: Perceived negative impacts of the extension (most frequently mentioned) (unprompted)



* Based on subsample of respondents who reported they had been personally affected by the extension to daylight saving.

4.3.1 General public

As mentioned in section 4.1.1, 52 percent of the general public believed that the extension had an impact on *themselves personally*. Taken as a proportion of the total sample, and based on *unprompted* responses, the following proportions of the general public experienced a range of positive and negative impacts as a result of the extension:

- ◆ 31 percent overall reported experiencing positive impacts only.
- ◆ 14 percent overall reported experiencing both positive and negative impacts.
- ◆ Five percent overall reported experiencing negative impacts only.
- ◆ 49 percent overall reported experiencing no impacts (neither positive nor negative).¹⁴

The following sub-sections summarise the specific impacts that were experienced, in relation to positive and negative impacts respectively.

Positive impacts

- ◆ On an unprompted basis, the 52 percent of general public respondents who reported the extension had an impact on themselves personally, most frequently identified the following as positive impacts or benefits they had experienced as a result of the extension:

¹⁴ This 49 percent includes the 47 percent of people who earlier stated that the extension did not have an impact on them personally, as well as a small number of people who had earlier reported that the extension did have an impact on them, but stated no specific impacts on an unprompted basis.



- ◆ *More daylight hours generally* (34 percent overall).
 - ◆ More likely for those who approved of the daylight saving extension than for those who did not approve (38 percent compared to 12 percent).
- ◆ *Liked it / enjoyed the extra daylight* (28 percent overall).
 - ◆ More likely for people in the Central regions than for those in the North or the South (39 percent, 23 percent, and 25 percent, respectively).
 - ◆ More likely for those who approved of the extension than for those who did not approve (32 percent compared to seven percent).
- ◆ *Did more evening leisure activities* (19 percent overall).
 - ◆ More likely for those who approved of the extension than for those who did not approve (23 percent compared to one percent).
- ◆ *Was able to do more gardening / lawns / outdoor work at home* (17 percent overall).
 - ◆ More likely for those aged 40 to 59 than for 16 to 24 year olds (21 percent compared to nine percent).
 - ◆ More likely for those without children in the household (19 percent compared to nine percent of households with children).
 - ◆ More likely for those who approved of the extension than for those who did not approve (18 percent compared to 10 percent).
- ◆ *Did more exercise / went for walks in the evening* (13 percent overall).
 - ◆ More likely for those who approved of daylight saving than for those who did not approve (15 percent compared to five percent).
- ◆ However, some respondents who believed they had experienced personal impacts reported that they felt there were no positive impacts (12 percent of the general public overall).
- ◆ Grouping common responses together, half (50 percent) of these respondents mentioned *general* benefits of the extension (related to enjoying the extra daylight hours), one-third (33 percent) reported *household-related* benefits, 29 percent *leisure-related* benefits, 23 percent *recreation-related* benefits, and 11 percent *work-related* benefits.
 - ◆ Respondents in the North were less likely to suggest *general* benefits (46 percent), those in the Central regions were less likely to mention *recreation-related* impacts (15 percent), and those in the South were less likely to mention *work-related* issues (five percent).



- ◆ Younger adults, aged 16 to 24 years old, were less likely to mention *household-related* benefits than were all older adults (19 percent, compared to more than 30 percent of adults in all other age groups). Also, 25 to 39 year olds were more likely than those aged 60 years or older mention *recreation-related* issues (28 percent compared to 14 percent).
- ◆ Those who approved of the extension were more likely than those who did not approve to report *general* benefits (57 percent compared to 18 percent), *household-related* benefits (36 percent compared to 17 percent), *leisure-related* impacts (34 percent compared to six percent), and *recreation-related* impacts (25 percent compared to nine percent).
- ◆ Respondents in rural areas were more likely than those in provincial and metropolitan areas to report *work-related* benefits (29 percent, nine percent, and nine percent, respectively). In particular, 15 percent of rural residents mentioned *longer days to work more hours* as a benefit.
- ◆ Taken together, 88 percent of the general public who believed there were impacts on themselves mentioned at least one positive impact (representing 45 percent of the total general public sample).
 - ◆ Not surprisingly, those who approved of the extension were more likely than those who did not approve to report at least one positive impact (97 percent compared to 42 percent).
 - ◆ Older adults aged 60 years or older were less likely than 16 to 24 year olds and 25 to 39 year olds to mention at least one positive impact (79 percent, 89 percent, and 95 percent, respectively).

The total general public sample was prompted with a range of positive impacts, whether or not they had reported experiencing any impacts on themselves personally.

- ◆ The following were most frequently reported as positive impacts or benefits after prompting:
 - ◆ *Did more leisure activities in the evening* (72 percent overall).
 - ◆ Less likely for those aged 60 years or more (60 percent) compared to about three-quarters of adults in all other age groups.
 - ◆ *Used less electricity or power in my household* (69 percent overall).
 - ◆ More likely for 25 to 39 year olds than for those aged 60 years or more (75 percent compared to 63 percent).
 - ◆ *Did more outdoor activities at home (for example, gardening or doing the lawns)* (67 percent overall).
 - ◆ Less likely for 16 to 24 year olds (52 percent) than for all older age groups.



- ◆ *Returned home from work, study or other activities in daylight* (65 percent overall).
 - ◆ More likely for those in the North than for those in the Central and Southern regions (70 percent, 60 percent, and 60 percent, respectively).
 - ◆ More likely for 16 to 24 year olds and 25 to 39 year olds than for 40 to 49 year olds and those aged 60 or older (83 percent, 72 percent, 69 percent, and 38 percent).
- ◆ *Spent more time with my children and/or family* (60 percent of parents overall).
 - ◆ More likely for those parents aged 25 to 39 (70 percent).
- ◆ After prompting, only five percent of general public respondents believed there were no positive impacts at all.
 - ◆ Older adults aged 60 years or older were more likely to believe there were no positive impacts at all (10 percent).

Negative impacts

- ◆ On an unprompted basis, the 52 percent of general public respondents who reported the extension had an impact on themselves personally, most frequently identified the following as negative impacts or problems they had experienced as a result of the extension:
 - ◆ *It was too cold / dark in the morning* (17 percent overall).
 - ◆ Less likely for those who approved of the extension than for those who did not approve (12 percent compared to 42 percent).
 - ◆ More likely for those in provincial areas than for those in metropolitan areas (27 percent compared to 12 percent).
 - ◆ More likely for 40 to 59 year olds than for 16 to 24 year olds (21 percent compared to 10 percent).
 - ◆ *Harder to get up earlier in the morning* (10 percent overall).
 - ◆ Less likely for those who approved of the extension than for those who did not approve (7 percent compared to 27 percent).
 - ◆ *More difficult getting children to bed / sleep* (six percent overall).
- ◆ However, over half (61 percent) of the general public respondents who believed they had experienced personal impacts reported that they felt there were no negative impacts.
 - ◆ People in the Central regions were more likely than those in the North to report they had experienced no negative impacts (69 percent compared to 56 percent).



- ◆ Grouping common responses together, one-quarter (26 percent) of these respondents mentioned *general* impacts or problems of the extension (related to being too cold or dark in the morning, harder to get up, etc.), 14 percent reported *household-related* issues, and two percent *work-related* issues.
 - ◆ Those who approved of the extension were less likely than those who did not approve to mention *general* problems (18 percent compared to 63 percent), and *household-related* problems (10 percent compared to 30 percent).
 - ◆ Those aged 40 to 59 years were more likely than 16 to 24 year olds to report *general* problems (30 percent compared to 17 percent). Those aged 25 to 39 years were most likely to mention *household-related* issues (20 percent).
- ◆ Taken together, 50 percent of the general public who believed there were impacts on themselves mentioned at least one negative impact (representing 20 percent of the total general public sample).
 - ◆ As expected, respondents who approved of the extension were less likely than those who did not approve to report at least one negative impact (30 percent compared to 80 percent).
 - ◆ Residents in rural areas were more likely than those in metropolitan areas to report at least one negative impact (56 percent compared to 33 percent).

The total general public sample was prompted with a range of negative impacts or problems, whether or not they had reported experiencing any impacts on themselves personally.

- ◆ When prompted, fewer respondents mentioned any specific negative impacts (compared to positive impacts), with the most frequently mentioned negative issues including:
 - ◆ *I had more difficulty getting up in the morning because it was so dark in those last three weeks of daylight saving* (28 percent overall).
 - ◆ Less likely for those who approved of the extension than for those who did not approve (23 percent compared to 56 percent).
 - ◆ *It was even more difficult to adjust when the clocks finally went back again* (15 percent overall).
 - ◆ Less likely for those who approved of the extension than for those who did not approve (13 percent compared to 28 percent).
 - ◆ More likely for those in provincial areas than for those in metropolitan areas (20 percent compared to 13 percent).



- ◆ More likely for 16 to 24 year olds than for 40 to 59 year olds (20 percent compared to 12 percent).
- ◆ *I had more difficulty getting my children up in the morning during the last three weeks of daylight saving because it was so dark* (16 percent of parents overall).
 - ◆ Less likely for parents who approved of the extension than for those who did not approve (13 percent compared to 35 percent).
 - ◆ More likely for parents aged 40 to 59 or 25 to 39 than for those aged 16 to 24 years (24 percent, 16 percent, and six percent, respectively).
- ◆ *I had more difficulty getting my children to bed or to sleep because it's lighter* (11 percent of parents overall).
 - ◆ More likely for parents in the Central region than for those in the North (18 percent compared to eight percent).
 - ◆ More likely for parents aged 25 to 39 than for those aged 16 to 24 years (15 percent compared to six percent).
- ◆ However, half (52 percent) of all general public respondents believed there were no negative impacts at all, even when prompted.
 - ◆ Those who approved of the extension were more likely than others to report experiencing no negative impacts (49 percent compared to 17 percent).
 - ◆ Older adults aged 60 years or more were more likely to report none of the negative impacts when prompted (66 percent, compared to 54 percent of 40 to 59 year olds, 44 percent of 25 to 39 year olds, and 45 percent of 16 to 24 year olds).

4.3.2 Dairy farmers

As mentioned in section 4.1.2 , 49 percent of all dairy farmers believed that the extension had an impact on *themselves personally*. Taken as a proportion of the total sample, and based on *unprompted* responses, the following proportions of dairy farmers experienced a range of positive and negative impacts as a result of the extension:



- ◆ 10 percent overall reported experiencing positive impacts only.
- ◆ 18 percent overall reported experiencing both positive and negative impacts.
- ◆ 20 percent overall reported experiencing negative impacts only.
- ◆ 52 percent overall reported experiencing no impacts (neither positive nor negative).¹⁵

The following sub-sections summarise the specific impacts that were experienced by dairy farmers, in relation to positive and negative impacts respectively.

Positive impacts

- ◆ On an unprompted basis, the 49 percent of dairy farmers who reported the extension had an impact on themselves personally, most frequently identified the following as positive impacts or benefits they had experienced as a result of the extension:
 - ◆ *More daylight hours generally* (18 percent overall).
 - ◆ Less likely for farm owners and managers than for other farm workers (15 percent compared to 27 percent).
 - ◆ Less likely for farmers with more than 30 years experience (five percent).
 - ◆ *Liked it / enjoyed the extra daylight* (16 percent overall).
 - ◆ *Did more evening leisure activities* (12 percent overall).
 - ◆ More likely for farmers in the North and Central regions than for those in the South (15 percent, 12 percent, and two percent, respectively).
 - ◆ More likely for farmers with less than 10 years experience or 10 to 19 years experience than for those farming for 30 or more years (18 percent, 17 percent, and four percent).
 - ◆ *Longer days / more work hours* (nine percent overall).
 - ◆ More likely for farm owners and managers than for other farm workers (11 percent compared to three percent).
 - ◆ *Did more relaxation / socialising outside* (eight percent overall).

¹⁵ This 52 percent includes the 50 percent of dairy farmers who earlier stated that the extension did not have an impact on themselves personally, as well as a small number of dairy farmers who had earlier reported that the extension did have an impact on them, but stated no specific impacts on an unprompted basis.



- ◆ More likely for farmers with less than 10 years experience, 10 to 19 years experience, and 20 to 29 years experience, than for those farming for 30 or more years (10 percent, 10 percent, 12 percent, and zero percent, respectively).
- ◆ However, 42 percent of dairy farmers who believed they had experienced personal impacts reported that they felt there were no positive impacts.
- ◆ Grouping common responses together, one-quarter (28 percent) of these dairy farmers mentioned *general* benefits of the extension (related to enjoying the extra daylight hours), one-fifth (19 percent) mentioned *leisure-related* benefits, 16 percent *work-related* benefits, 15 percent *household-related* benefits, and nine percent *recreation-related* benefits.
 - ◆ Farmers in the North and Central regions were more likely than those in the South to report any *work-related* impacts (18 percent, 16 percent, and six percent, respectively). In addition, those in the North were more likely than those in the South to mention *leisure-related* benefits (24 percent compared to eight percent).
 - ◆ Farmers aged 25 to 39 were more likely than those aged 40 to 59 to mention any *leisure-related* benefits (28 percent compared to 13 percent), and *recreation-related* benefits (15 percent compared to four percent).
 - ◆ Farmers with 30 or more years experience were least likely to report any *general* benefits (13 percent), *leisure-related* benefits (four percent), and *recreation-related* benefits (one percent).
- ◆ Taken together, just over half (58 percent) of dairy farmers who believed there were impacts on themselves mentioned at least one positive impact (representing 28 percent of the total dairy farmers sample).
 - ◆ Farm owners and managers were less likely than other farm workers to report at least one positive benefit of the extension (52 percent compared to 72 percent).
 - ◆ Younger farmers aged 25 to 39 were more likely than those aged 40 to 59 to mention at least one positive benefit (70 percent compared to 53 percent).

The total dairy farmers sample was prompted with a range of positive impacts, whether or not they had reported experiencing any impacts on themselves personally.

- ◆ The following were most frequently reported as positive impacts or benefits after prompting:
 - ◆ *Returned home from work, study or other activities in daylight* (64 percent overall).
 - ◆ More likely for younger farmers aged 25 to 39 than for those aged 40 to 59 or 60 years and older (71 percent, 60 percent, and 44 percent, respectively).



- ◆ More likely for those with 10 to 19 years farming experience than for those with 30 or more years experience (73 percent compared to 54 percent).
- ◆ *Did more outdoor activities at home (for example, gardening or doing lawns)* (61 percent overall).
 - ◆ Less likely for farmers with a small herd size of less than 250 cows than for those with a medium herd size of 250 to 399 cows (52 percent compared to 65 percent).
 - ◆ Less likely for farmers with 30 or more years farming experience (47 percent).
- ◆ *Did more leisure activities in the evening* (60 percent overall).
 - ◆ Less likely for farm owners and managers than for other farm workers (57 percent compared to 68 percent).
 - ◆ More likely for farmers aged 16 to 24 and 25 to 39 years than for those aged 40 to 59 years or 60 years and older (71 percent, 72 percent, 53 percent, and 19 percent).
 - ◆ Less likely for farmers with 20 to 29 years experience, or more than 30 years experience (58 percent and 42 percent, respectively).
 - ◆ Less likely for farmers with a small herd size of less than 250 cows than for those with a large herd size of 400 or more cows (54 percent compared to 66 percent).
- ◆ *Spent more time with my children and/or family* (54 percent of parents overall).
 - ◆ Less likely for parents with 30 or more years farming experience (34 percent).
- ◆ *Used less electricity or power in my household* (53 percent overall).
 - ◆ More likely for farmers with less than 10 years or 10 to 19 years experience compared to those with 20 to 29 years or more than 30 years experience (57 percent, 63 percent, 47 percent, and 44 percent, respectively).
- ◆ Only 10 percent of all dairy farmers believed there were no positive impacts after prompting.
 - ◆ Farm owners and managers were more likely to believe there were no positive impacts (13 percent compared to five percent of other farm workers).
 - ◆ Older adults aged 60 years and older or 40 to 59 years were more likely to mention there were no positive benefits than were those aged 25 to 39 (26 percent, 12 percent, and six percent, respectively).



- ◆ Farmers with 30 or more years experience were more likely to believe there were no positive benefits (16 percent)

Negative impacts

- ◆ On an unprompted basis, the 49 percent of dairy farmers who reported the extension had an impact on themselves personally, most frequently identified the following as negative impacts or problems they had experienced as a result of the extension:
 - ◆ *It was too cold / dark in the morning* (47 percent overall).
 - ◆ More likely for farm owners and managers than for other farm workers (53 percent compared to 33 percent).
 - ◆ More likely for those aged 40 to 59 than for those aged 25 to 39 years (54 percent compared to 39 percent).
 - ◆ More likely for those with 30 or more years farming experience (61 percent).
 - ◆ *Hard to get up earlier in the morning* (15 percent overall).
 - ◆ More likely for farmers in the North than for those in the South (18 percent compared to eight percent).
 - ◆ More likely for farmers with a small herd size of less than 250 cows than for those with a medium herd size of 250 to 399 cows, or a large herd size of 400 or more cows (25 percent, 12 percent, and 11percent, respectively).
 - ◆ *Left for work in darkness* (10 percent overall).
 - ◆ *More difficult getting children to bed / sleep* (nine percent overall).
 - ◆ *Dairy / milk production disrupted (through change in routine and/or milking times)* (nine percent overall).
 - ◆ One-fifth (22 percent) of dairy farmers who believed they had experienced personal impacts reported that they felt there were no negative impacts.
- ◆ Grouping common responses together, three-fifths (60 percent) of these dairy farmers mentioned *general* impacts or problems of the extension (related to being too cold or dark in the morning, harder to get up, etc.), one-fifth (19 percent) reported *household-related* issues, 14 percent *work-related* issues, and 11 percent other *farm-related* issues.
 - ◆ Farm owners and managers were more likely than other farm workers to mention *general* impacts (64 percent compared to 48 percent).



- ◆ Farmers aged 40 to 59 years were more likely than those aged 25 to 39 to report any *general* issues (69 percent compared to 48 percent).
- ◆ Farmers with 30 or more years experience were more likely to mention any *general* problems (79 percent). Those farming for less than 10 years were more likely than those with 10 to 19 years experience to report *work-related* issues (21 percent compared to seven percent).
- ◆ Taken together, 78 percent of dairy farmers who believed there were impacts on themselves mentioned at least one negative impact (representing 38 percent of the total dairy farmers sample).

The total dairy farmers sample was prompted with a range of negative impacts or problems, whether or not they had reported experiencing any impacts on themselves personally.

- ◆ When prompted, fewer dairy farmers mentioned any specific negative impacts, with the most frequently mentioned including:
 - ◆ *I had more difficulty getting up in the morning because it was so dark in those last three weeks of daylight saving* (39 percent overall).
 - ◆ More likely for farm owners and managers than for other farm workers (46 percent compared to 25 percent).
 - ◆ More likely for those aged 60 years or more and 40 to 59 year olds than for 25 to 39 year olds and 16 to 24 year olds (56 percent, 46 percent, 34 percent, and 14 percent, respectively).
 - ◆ More likely for those with 30 or more years of farming experience (53 percent).
 - ◆ More likely for farmers with small or medium herds than for those with larger herds (47 percent, 43 percent, and 31 percent, respectively).
 - ◆ *I had more difficulty getting my children up in the morning during the last three weeks of daylight saving because it was so dark* (27 percent of parents overall).
 - ◆ More likely for farmers with small herds than for those with medium or large herds (38 percent, 22 percent, and 22 percent, respectively).
 - ◆ Less likely for parents with less than 10 years farming experience than for those with 10 to 19 or 20 to 29 years experience (17 percent, 32 percent, and 31 percent, respectively).
 - ◆ *I had more difficulty getting my children to bed or to sleep because it's lighter* (26 percent of parents overall).



- ◆ *It was even more difficult to adjust when the clocks finally went back again (22 percent overall).*
- ◆ *I found it hard to change my routine (16 percent overall).*
 - ◆ More likely for farmers with 20 to 29 years experience than for those farming for 10 to 19 years (21 percent compared to 12 percent).
- ◆ *Milk production has been disrupted because of change in milking times or routine (14 percent overall).*
- ◆ However, one-third (37 percent) of all dairy farmers believed there were no negative impacts, even when prompted.
 - ◆ Farmers with large herds were more likely than those with medium or small herds to report that there were no negative impacts (45 percent, 30 percent, and 23 percent, respectively).



5.0 Awareness of the extension

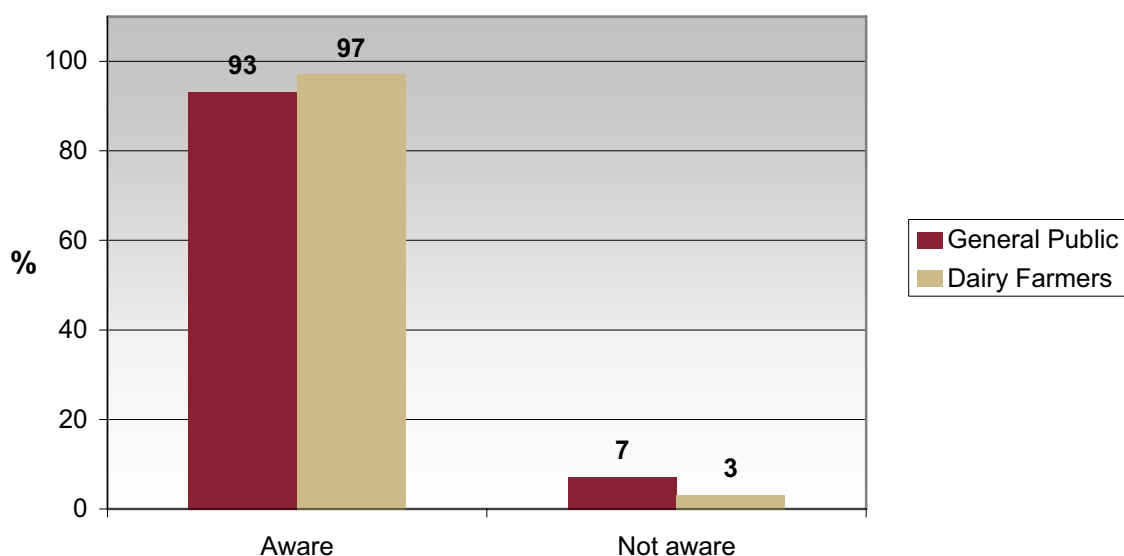
Respondents were asked about their awareness of the daylight saving extension as a means of introducing them to the survey topic. This section summarises the findings related to respondents' awareness of the daylight saving extension, including the extent to which they realised it started earlier and finished later than previous years.

Note that all interviewing for the survey was completed following the end of the daylight saving extension, so this obviously has an impact on the extent to which people would have been aware of the extension.¹⁶

5.1 Awareness of the timing of the extension

Overall, the majority of both the general public and dairy farmers were aware that the daylight saving period had changed in the last year. However, people were generally less certain about the specific timing or duration of the extension.

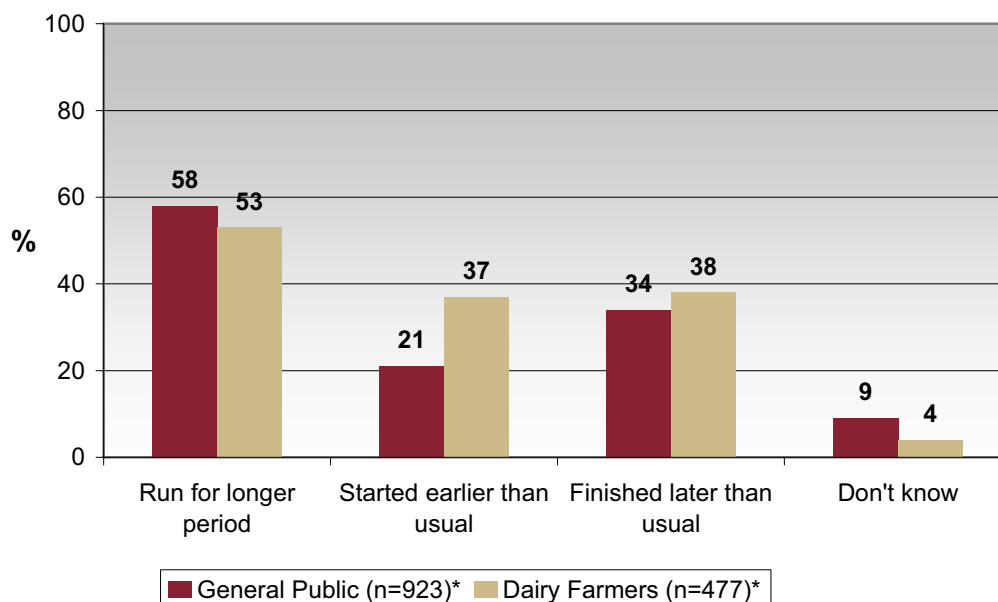
Figure 10: Awareness of the extension of daylight saving



¹⁶ Following the questions about their awareness of the extension and its duration, all respondents were specifically informed about the timing of the extension, before any further questioning. Refer to the questionnaire in Appendix A for the exact wording of this explanation (Q8).



Figure 11: Knowledge of change to timing of latest daylight saving period



* Based on subsample of respondents who were aware of the extension to daylight saving.

5.1.1 General public

Awareness of the fact that daylight saving had changed this year was very high among the general public:

- ◆ Almost all (93 percent) general public respondents reported they were aware that daylight saving had changed this year.
 - ◆ Young adults (16 to 24 year olds) were less likely to be aware of the change (81 percent).
 - ◆ Residents in rural areas were more likely than those in provincial and metropolitan areas to be aware that daylight saving had changed this year (98 percent, 92 percent, and 93 percent, respectively).
- ◆ However, a small proportion (seven percent) were not aware of the change.

Those who were aware of a change were asked to specify what was different about the timing of the latest period of daylight saving. Many respondents were aware that it had run for a longer period, although fewer specified that it had started earlier and finished later than previous years.

- ◆ Over half (58 percent) of the general public respondents reported that daylight saving had *run for a longer period*, while 21 percent mentioned it had *started earlier than usual*, and 34 percent mentioned it had *finished later than usual*.
 - ◆ People in the North were more likely than those in the South to report that daylight saving started earlier than usual (24 percent compared to 14 percent). They were also more



likely than those in the Central and South regions to mention that daylight saving finished later than usual (41 percent, 28 percent, and 23 percent, respectively).

- ◆ Younger adults aged 16 to 24 years were less likely than older adults to know that daylight saving had run for a longer period (48 percent), that it had started earlier than usual (11 percent), and that it had finished later than usual (28 percent).

All respondents were informed that the latest daylight saving period was longer than last year. Asked how much longer it was, few could identify the exact nature of the change:

- ◆ 16 percent believed it was longer overall by two weeks or less, 24 percent by three weeks, 13 percent by four weeks, and five percent by more than four weeks overall.
- ◆ Eight percent reported that it was longer at the beginning of daylight saving by one week, 10 percent by two weeks, and two percent by three weeks.
- ◆ Four percent reported that it was longer at the end of daylight saving by one week, 19 percent by two weeks, 16 percent by three weeks, and four percent by four or more weeks.

5.1.2 Dairy farmers

Awareness of the fact that daylight saving had changed this summer was also very high among dairy farmers:

- ◆ Overall, almost all (97 percent) of dairy farmers reported they were aware of daylight saving changing.
- ◆ Only 3 percent of dairy farmers did not realise that the daylight saving period had changed.

Asked what specifically was different about the timing of the latest daylight saving period compared to previous years, many respondents who were aware of the change were also aware that it had run for a longer period, although fewer specified that it had started earlier and finished later than previous years.

- ◆ About half (53 percent) of dairy farmers reported that daylight saving had *run for a longer period*, while 37 percent mentioned it had *started earlier than usual*, and 38 percent mentioned it had *finished later than usual*.
 - ◆ Farmers in the South were less likely than those in the North and Central regions to realise that daylight saving started earlier than usual (22 percent, 41 percent, and 36 percent, respectively).
 - ◆ Farmers aged 16 to 24 years were less likely than older farmers to realise that daylight saving had started earlier than usual (22 percent), and that it had finished later than usual (17 percent).



- ◆ Farmers with less than ten years experience were less likely than more experienced farmers to report that daylight saving had finished later than usual (30 percent).

As for the general public, all dairy farmers were informed that the latest daylight saving period was longer than last year. Asked how much longer it was, few could identify the exact nature of the change:

- ◆ 15 percent believed it was longer overall by two weeks or less, 30 percent by three weeks, 17 percent by four weeks, and nine percent by more than four weeks overall.
- ◆ Eight percent reported that it was longer at the beginning of daylight saving by one week, nine percent by two weeks, and four percent by three weeks or more.
- ◆ Three percent reported that it was longer at the end of daylight saving by one week, 16 percent by two weeks, 14 percent by three weeks, and two percent by four or more weeks.



Appendix A Questionnaire

LOCATION:	QUOTA: GENERAL PUBLIC (N=1000)	QUOTA: DAIRY FARMERS (N=500)
1. General Public – North	Northern n=375	Northern n=200
2. General Public – Central	Central..... n=375	Central..... n=200
3. General Public – South	Southern..... n=250	Southern..... n=100
4. Dairy Farmers – North		
5. Dairy Farmers – Central		
6. Dairy Farmers – South		

DIA DAYLIGHT SAVING EXTENSION – April 2008

GENERAL PUBLIC & DAIRY FARMERS SURVEY

Research New Zealand #3757

APRIL 2008

INTRODUCTION

INTRODUCTION FOR GENERAL PUBLIC

Good morning/afternoon/evening, my name is ^I from Research New Zealand. Could I please speak to **[NAME]**?

The Department of Internal Affairs recently sent your household a letter about a survey we are conducting on people's opinions about Daylight Saving. Did you receive this letter?

IF YES, CONTINUE.

IF NO, PROVIDE SUMMARY OF LETTER/RESEARCH, AND ARRANGE FOR RE-SEND IF REQUIRED.

This research takes about 10-15 minutes depending on your answers.

We are surveying both men and women in your household. To make sure we speak to a good cross-section of New Zealanders, we would like to talk to the male aged 16 to 39 who has his birthday next. Could you please tell me his name, and may I speak with him please?

IF NO MALE 16-39 AVAILABLE, ASK FOR FEMALE 16 TO 39

What about the female aged 16 to 39 in your household, who has the next birthday? Could you please tell me her name, and may I speak with her please?

IF NO-ONE 16-39 AVAILABLE, ASK FOR MALE 40+

Are there any males aged 40 or older in your household that I could speak to?

IF NO MALE AVAILABLE, ASK FOR FEMALE 40+

And are there any females aged 40 or older in your household that I could speak to?

REINTRODUCE AS NECESSARY

This research takes about 10-15 minutes. When would suit, or is now a good time?

IF NO: When would be a more convenient time? MAKE APPOINTMENT ONLY IF SPOKEN TO "ST" APPOINTMENT

INTRODUCTION FOR FARMERS

Good morning/afternoon/evening, my name is ^I from Research New Zealand. Could I please speak to **[NAME]**?

The Department of Internal Affairs recently sent you a letter about a survey we are conducting with dairy farmers about Daylight Saving. Did you receive this letter?

IF YES, CONTINUE.

IF NO, PROVIDE SUMMARY OF LETTER/RESEARCH, AND ARRANGE FOR RE-SEND IF REQUIRED.

Can I confirm that you work on a dairy farm?

IF YES, CONTINUE.

IF NO, THANK AND TERMINATE. CODE ON OUTCOME SCREEN AS “NO DAIRY FARMER IN HOUSEHOLD”.

REINTRODUCE AS NECESSARY

This research takes about 10-15 minutes. When would suit, or is now a good time?

IF NO: When would be a more convenient time? MAKE APPOINTMENT ONLY IF SPOKEN TO “ST” APPOINTMENT

BACKGROUND INFORMATION ONLY IF NEEDED:

- This is genuine market research. I'm not selling anything.
- Research New Zealand is an independent market research company, contracted by the Department of Internal Affairs for the purposes of conducting this survey.
- Your name and contact details have been selected at random from the Electoral Roll, specifically for the purposes of this survey. Your phone number was obtained from the White Pages. We do not hold any other personal information about you.
- The reason we ask for males first is that women are much more willing to participate in research and we find that at the end of the project we spend a lot of time trying to get enough men to meet our quotas. We find if we ask for a male in the household first then this doesn't happen so much.
- We are specifically looking for **dairy farmers** to speak to, rather than people who work on other types of farms.
- Information provided is confidential. We report summary results about groups; we do not identify which individuals have said what.

READ

As part of our quality improvement process, my Supervisor may listen to this call.

SECTION 1: SCREENING QUESTIONS

Q1 First of all, to make sure we have spoken to a good cross-section of New Zealanders, can you tell me which of the following age groups you belong to? **READ.**

- 1 16-17
- 2 18-19
- 3 20-24
- 4 25-29
- 5 30-39
- 6 40-49
- 7 50-59
- 8 60-69
- 9 70 years and over
- 98 ... Don't know *****DO NOT READ*****

Q2 In which of the following areas do you live? **READ**

- 1 Northland
- 2 Auckland
- 3 Waikato
- 4 Bay of Plenty
- 5 Gisborne
- 6 Hawke's Bay
- 7 Taranaki
- 8 Manawatu-Wanganui
- 9 Wellington-Wairarapa
- 10 ... Tasman
- 11 ... Nelson
- 12 ... Marlborough
- 13 ... West Coast
- 14 ... Canterbury
- 15 ... Otago
- 16 ... Southland
- 98 ... Don't know *****DO NOT READ*****

Q3 Which of the following best describes your household? **READ**

- 1 Young couple without children
- 2 Family household with youngest child under 5
- 3 Family household with youngest child 5 to 15
- 4 Family household with youngest child over 15
- 5 Older couple – no children or none living at home
- 6 Single/one person household
- 7 Flat/shared household – not a family household
- 96 ... Other *****DO NOT READ*****
- 98 ... Don't know *****DO NOT READ*****
- 99 ... Refused *****DO NOT READ*****

QUOTAS: GENERAL PUBLIC

BASED OFF SAMPLE LOCATIONS

TERMINATION STATEMENT: QUOTA FULL

I'm sorry, but we have already interviewed enough people in these groups. Thank you for your time.

Q4 IF FARMER (LOCATION 4-6) ASK, ELSE GO Q5:

And what type of farm do you currently work on? **READ. PROBE TO IDENTIFY IF MAINLY DAIRY.**

- | | |
|---|-------------|
| 1Mostly dairy |] TERMINATE |
| 2Mostly sheep |] TERMINATE |
| 3Mostly beef |] TERMINATE |
| 4Sheep and Beef |] TERMINATE |
| 96 ...Other ***DO NOT READ*** |] TERMINATE |
| 98 ...Don't know ***DO NOT READ*** |] |

QUOTAS: FARMERS

BASED OFF SAMPLE LOCATION

TERMINATION STATEMENT: FARMERS - NOT DAIRY FARMER

Sorry, at this stage we just want to interview people who work on dairy farms. Thanks for your time.

TERMINATION STATEMENT: FARMERS - QUOTA FULL

I'm sorry, but we have already interviewed enough people in these groups. Thank you for your time.

SECTION 2: AWARENESS & KNOWLEDGE OF DAYLIGHT SAVING

Q5 Every year, New Zealanders put their clocks forward for Daylight Saving time at the start of summer. Were you aware that the Daylight Saving period had changed in the last year?

- 1Yes
- 2No
- 98 ...Don't know

Q6 **IF CODE 1 AT Q5 ASK, ELSE GO Q7.**

Compared to previous years, what specifically was different about the timing of this latest period of Daylight Saving? **PROBE FULLY. CODE MANY**

- 1Ran for longer period
- 2Started earlier than usual
- 3Finished later than usual
- 96 ...Other **Specify**
- 98 ...Don't know ;E

Q7 The latest Daylight Saving period was longer than last year. Can you tell me how much longer it was? **CODE MANY**

OVERALL

- 1One week overall
- 2Two weeks overall
- 3Three weeks overall
- 4Four weeks overall
- 5More than four weeks overall

LONGER AT BEGINNING

- 6One week at beginning
- 7Two weeks at beginning
- 8Three weeks at beginning
- 9Four or more weeks at beginning

LONGER AT END

- 10 ...One week at end
- 11 ...Two weeks at end
- 12 ...Three weeks at end
- 13 ...Four or more weeks at end

- 96 ...Other **Specify**
- 98 ...Don't know ;E

SECTION 3: THE IMPACT OF DAYLIGHT SAVING

Q8 **READ TO ALL RESPONDENTS:**

The recent Daylight Saving period started a week earlier, and finished three weeks later than it did last year. This means that from 16th March to April 6th this year the sun rose later and set later than it did this time last year. The following questions all relate to this extension to the end of Daylight Saving, rather than the complete period of Daylight Saving.

Q9 Do you believe the extension to the end of Daylight Saving had any particular impact on yourself or any other types of people in the population? **CODE MANY.**

PROMPT IF NECESSARY: What about for yourself / other people?

- 1Yes - impact on self
- 2Yes - impact on others
- 97 ...No particular impact on myself or others ;E
- 98 ...Don't know ;E

Q10 IF CODE 2 (“IMPACT ON OTHERS”) AT Q9 ASK:

In your opinion, which groups of the population were most affected by the extended daylight saving period? **CODE MANY. PROBE TO NO.**

INTERVIEWERS: IF RESPONDENT MENTIONS SPECIFIC OCCUPATION GROUP, PLEASE ENTER AS CODE 96 “OTHER SPECIFY”

FARMERS

- 1Farmers (general mention)
- 2Dairy farmers
- 3Sheep and beef farmers
- 4Horticulturalists

OTHERS

- 5Shift-workers
- 6People participating in sports / outdoor recreation
- 7Parents
- 8Young children (12 years or younger)
- 9Older children / youth / students (13 years or older)
- 10 ...Older adults / the elderly
- 11 ...Everyone
- 96 ...Other **Specify**
- 97 ...No one in particular ;E
- 98 ...Don't know ;E

Q11 IF CODE 1 (“IMPACT ON SELF”) AT Q9 ASK:

What, if any, positive impacts did the extended Daylight Saving period have on you personally?

CODE MANY.

PROMPT FOR IMPACTS RELATED TO HOME LIFE, WORK, LEISURE & RECREATION.

GENERAL MENTIONS

- 1More daylight hours
- 2Liked it / enjoyed extra daylight
- 3More time for volunteering / community activities

HOUSEHOLD-RELATED

- 4Was able to do more gardening / lawns / outdoor work at home
- 5Got more housework / domestic chores done
- 6Got more household maintenance / repairs done
- 7Spent more time with children / family
- 8Spent more time relaxing with other people in my household
- 9Spent more time relaxing (on my own)
- 10 ...Used less electricity / power / lighting
- 11 ...Was able to sleep-in (i.e. not woken by dawn sunlight)

WORK-RELATED

- 12 ...Extended working hours into evening
- 13 ...Longer days / work more hours
- 14 ...Was able to return home in daylight

LEISURE-RELATED (PASSIVE ACTIVITIES)

- 15 ...Did more evening leisure activities (general mention)
- 16 ...Did more relaxation / socialising outside
- 17 ...Had more barbecues / outdoor eating
- 18 ...It was safer to go out because it was light for longer

RECREATION (INC PHYSICAL ACTIVITY & SPORT)

- 19 ...Played more time for sport
- 20 ...Did more exercise / went for walks in evening
- 21 ...Took the children out more often (e.g. to parks)

- 96 ...Other positive impacts **Specify**
- 97 ...No positive impacts ;E
- 98 ...Don't know ;E

Q12 IF CODE 1 (“IMPACT ON SELF”) AT Q9 ASK:

And in what ways, if any, did the extension have a negative impact, or create difficulties for you?
CODE MANY.

PROMPT FOR IMPACTS RELATED TO HOME LIFE, WORK, LEISURE & RECREATION.

GENERAL MENTIONS

- 1It was too cold / dark in morning
- 2Day was too long
- 3It was extra hard to adjust when clocks went back again
- 4Hard to get up earlier
- 5Sleeping problems (hard to sleep / less sleep, etc)
- 6Problems with calendars on computers

HOUSEHOLD-RELATED

- 7More difficult getting children to bed / sleep
- 8More difficult getting children / other family up in the morning
- 9Harder for me to get up in morning / too dark
- 10 ...Used more power (e.g. lights on in morning, air conditioning in evening)

WORK-RELATED

- 11 ...Worked too long / less time for family
- 12 ...Left for work in darkness

FARM-RELATED

- 13 ...Hard to change my routine
- 14 ...Dairy / milk production disrupted (through change in routine / milking times)

96 ...Other negative impacts **Specify**

97 ...No negative impacts ;E

98 ...Don't know ;E

Q13 **RANDOMISE THIS QUESTION WITH Q14.** Thinking about your daily routine, compared to the same three weeks last year, which of the following applies to you because of the longer daylight saving period? During those last three weeks of daylight saving I... **READ. CODE MANY. RAND.**

FOR ALL RESPONDENTS:

- 1Did more outdoor activities at home (for example, gardening or doing lawns)
- 2Was able to do more housework or domestic chores in the evening
- 3Did more household maintenance or repairs in the evening
- 4Used less electricity or power in my household (for example, for lighting)
- 5Returned home from work, study or other activities in daylight
- 6Did more leisure activities in the evening (for example, relaxing outside, barbecues, eating outside)
- 7Felt safer going out in the evening because it was lighter for longer
- 8Participated in more sports activities, or for longer in the evening
- 9Did more exercise
- 10 ...Went for more walks in the evening, or walked for longer

FOR RESPONDENTS WITH CHILDREN (IF CODE 2, 3, OR 4 AT Q3):

11 ...Spent more time with my children and/or family

97 ...None of the above ;E *****DO NOT READ*****

98 ...Don't know ;E *****DO NOT READ*****

Q14 Thinking about your daily routine, compared to the same three weeks last year, which of the following apply to you because of the longer daylight saving period? The extra three weeks at the end of daylight saving meant that....**READ. CODE MANY. RAND.**

FOR ALL RESPONDENTS:

- 1It was even more difficult to adjust when the clocks finally went back again
- 2I had more difficulty getting up in the morning because it was so dark in those last three weeks of daylight saving
- 3We had trouble with the clock on our computer because the daylight saving period had changed

FOR RESPONDENTS WITH CHILDREN (IF CODE 2, 3, OR 4 AT Q3):

- 4I had more difficulty getting my children to bed or to sleep because it's lighter
- 5I had more difficulty getting my children up in the morning during the last three weeks of daylight saving because it was so dark

FOR DAIRY FARMERS (LOCATIONS 4 - 6):

- 6I found it hard to change my routine
- 7Milk production has been disrupted because of a change in milking times or routine

97 ...None of the above ;E *****DO NOT READ*****

98 ...Don't know ;E *****DO NOT READ*****

Q14a Can you think of any other negative things that happened because of the extended daylight saving period, that you haven't mentioned already?

- 96 ...Answer **Specify**
- 97 ...No particular reason
- 98 ...Don't know

SECTION 4: APPROVAL OF DAYLIGHT SAVING & THE EXTENSION

Q15 Taking everything we've talked about into account, would you say you approve or disapprove of Daylight Saving in general? That is, thinking about the whole period of Daylight Saving, not just the recent extension.

PROBE: Is that strongly approve/disapprove or just approve/disapprove?

- 1Strongly disapprove
- 2Disapprove
- 3Neither approve nor disapprove
- 4Approve
- 5Strongly approve
- 98 ...Don't know

Q16 And do you approve or disapprove of the extension to Daylight Saving?

PROBE: Is that strongly approve/disapprove or just approve/disapprove?

- 1Strongly disapprove
- 2Disapprove
- 3Neither approve nor disapprove
- 4Approve
- 5Strongly approve
- 98 ...Don't know

Q17 IF 98 AT Q16 GO Q18:

Can you tell me your reasons for this? **PROMPT IF NECESSARY:** That is, why you approve or disapprove with the extension to Daylight Saving? **CODE MANY**

DISAGREE:

- 1 Too dark in morning / harder to get up in dark
- 2 Start work in dark
- 3 Makes it a longer day
- 4 Change in routine disruptive
- 5 Lost its usefulness / benefits during extension
- 6 Harder to get children to bed
- 7 Disruption to farm / stock routine

AGREE:

- 8 Can do more in day/evenings (general mention)
- 9 More relaxation time in evening (non-physical leisure)
- 10 ... More time to spend with children / family
- 11 ... More time for outside activities / work at home
- 12 ... More time for physical activity (e.g. walks, sport)
- 13 ... Use less power / electricity
- 14 ... Positives / benefits outweigh the negatives

OTHER:

- 15 ... I just accept it / no big difference
- 16 ... Benefitted from good weather this summer
- 17 ... Should start Daylight Saving earlier
- 96 ... Other **Specify**
- 97 ... No particular reason
- 98 ... Don't know

SECTION 5: CLASSIFICATION DETAILS

FOR FARMERS (LOCATIONS 4-6):

Q18 IF LOCATION 1 – 3, GO Q23:

Thinking now about your farming property. Which of the following **best** describes you? **READ**

- 1Farm owner-operator or joint owner or partner
- 2Farm manager
- 3Sharemilker
- 4Own or farm a lifestyle block
- 5Farm worker / employee / assistant
- 96...Other **Specify ***DO NOT READ*****
- 98...Don't know *****DO NOT READ*****
- 99...Refused *****DO NOT READ*****

Q19 Overall, how many years have you farmed for?

- 1Less than 5
- 25 - 9
- 310 - 14
- 415 - 19
- 520 - 24
- 625 - 29
- 730 or more (**Specify**)
- 98 ...Don't know
- 99 ...Refused

Q20 And how many farming properties do you currently manage and/or own?

- 1One
- 2More than one (**Specify**)
- 96 ...Other (**Specify**)
- 97 ...Do not own or manage any farms

Q21 And what is the size of the herd on your (largest) farm?

PROMPT IF NEEDED: An approximate answer is OK.

- 96 ...Answer (**SPECIFY NUM**)
- 98 ...Don't know
- 99 ...Refused

Q22 Is the milking on your farm(s) conducted... **READ**

- 1Only in the morning
- 2Only in the afternoon
- 3Both morning and afternoon
- 98 ...Don't know *****DO NOT READ*****

FOR ALL RESPONDENTS:

Q23 Now, to help us analyse our data, I would like to ask some questions about you. First of all, which of these best describes where you live? Do you live in a...? **READ WORDS AND NUMBERS**

- 1Rural area (under 1,000 population)
- 2A small town (1,000-9,999 population)
- 3A medium-sized town (10,000-29,999 population)
- 4A large town or city (30,000 or more population)
- 98 ...Don't know *****DO NOT READ*****

Q24 Which ethnic group do you belong to? (IF NECESSARY: you can belong to more than one)

CODE MANY

- 1New Zealand European (or Pakeha)
- 2Māori
- 3Pacific
- 4Asian
- 5Middle East/Latin American/African
- 96 ...Other ethnic group (**SPECIFY**)
- 99 ...Refused ;E

Q25 And which of these categories best describes you? **READ**

- 1Married/living with partner (**NOTE TO INTERVIEWER:** this includes civil unions)
- 2Separated, divorced, widowed
- 3Never married
- 99 ...Refused *****DO NOT READ*****

Q26 **IF CODE 6 IN Q3, SKIP TO Q28. ELSE ASK:**

Including yourself, how many people live in your household?

- 96 ...Answer (**SPECIFY NUM**)
- 98 ...Don't know
- 99 ...Refused

Q27 **IF CODE 2, 3 OR 4 AT Q263 ASK:**

Can you tell me how many children in your household, if any, are....? **READ. CODE MANY.**

- 1Under 5 years of age (**SPECIFY NUM**)
- 25-10 years of age (**SPECIFY NUM**)
- 311-15 years of age (**SPECIFY NUM**)
- 98 ...Don't know ;E *****DO NOT READ*****
- 99 ...Refused ;E *****DO NOT READ*****

Q28 Are you ...? **READ CODE MANY**

- 1Self employed
- 2A salary or wage earner
- 3Retired
- 4A full time home-maker
- 5A student
- 6Unemployed
- 96 ...Other beneficiary
- 99 ...Refused ;E *****DO NOT READ*****

Q29 **IF CODE 2 AT Q28 ASK:**

Are you a shift worker? **IF YES, ASK:** Do you ever work night shifts?

- 1Yes, work night shifts
- 2Yes, shift worker – but don't do night shifts
- 3No, not a shift worker

Q30 IF CODE 2 OR 3 AT Q25 ASK:

Which of these best describes your personal income from all sources, before tax for the last year?

READ

- 1Under \$20,000
- 2\$20,000 but less than \$40,000
- 3\$40,000 but less than \$60,000
- 4\$60,000 but less than \$80,000
- 5\$80,000 but less than \$100,000
- 6\$100,000 but less than \$120,000
- 7\$120,000 but less than \$140,000
- 8\$140,000 but less than \$160,000
- 9\$160,000 or more
- 98 ...Don't know *****DO NOT READ*****
- 99 ...Refused *****DO NOT READ*****

Q31 IF CODE 1 AT Q25 ASK:

Which of these best describes the joint income of you and your partner before tax, for the last year?

Please include any child support, benefits or other income support you or your partner may receive.

READ

- 1Under \$20,000
- 2\$20,000 but less than \$40,000
- 3\$40,000 but less than \$60,000
- 4\$60,000 but less than \$80,000
- 5\$80,000 but less than \$100,000
- 6\$100,000 but less than \$120,000
- 7\$120,000 but less than \$140,000
- 8\$140,000 but less than \$160,000
- 9\$160,000 or more
- 98 ...Don't know *****DO NOT READ*****
- 99 ...Refused *****DO NOT READ*****

Q32 And which of these best describes your highest educational qualification? **READ**

- 1No qualifications
- 2NCEA, School Certificate, or other secondary school qualification
- 3Polytechnic qualification or Trade Certificate
- 4Bachelors degree
- 5Post-graduate degree (Honours)
- 6Masters degree, or
- 7Doctorate
- 96 ...Other (**SPECIFY**) *****DO NOT READ*****
- 98 ...Don't know *****DO NOT READ*****
- 99 ...Refused *****DO NOT READ*****

Q33 CODE GENDER

- 1Male
- 2Female

SECTION 6: CLOSE

Q34 **IF LOCATION 1-3 ASK, ELSE GO Q35:**

And can I just confirm that you are the *male/female* in the household who is 16 years or over, and has the *next birthday*? (CODE "YES" IF ALL THREE CONDITIONS ARE CONFIRMED. IF ANSWER TO ANY ELEMENT IS "NO", CODE No.)

- 1.Yes
- 2.No
- 98. ...Don't Know
- 99. ...Refused

Q35 Those are all the questions I have. Do you have any other comments you'd like to make about this interview?

- 1Comments [SPECIFY]
- 2No

Q36 May I please have your first name in case my supervisor needs to check on the quality of this interview?

- 1Respondent first name [SPECIFY]
- 99 ...Refused

Thank you very much for your help. My name is [Q0IV] from Research New Zealand. If you have enquiries about this survey, please ring the Project Manager, Shane Palmer, on our toll-free number: 0800 500 168 (Wellington respondents 499-3088).

Q99VER interviewer comment Are there any additional comments/issues that need to be noted?

- 1Yes **Specify**
- 2No

Q99DEC Interviewer declaration I certify that this is a true and accurate record of the interview conducted by me in full accordance with the Market Research Code of Practice.

- 1Yes
- 2No

Q99NO interviewer reason Why have you entered 'No' to the Interviewer Declaration?

- 1Answer **Specify**