



Agriculture
Canada

Research
Branch

Direction générale
de la recherche

Technical Bulletin 1991-8E

Risk analyses of heat units available for corn production in the Maritime Provinces



Agriculture
Canada

JUL - 2 1991

23
Library / Bibliothèque, Ottawa K1A 0C5



630.72
c 159
c 91-8
00199

Canada



Digitized by the Internet Archive
in 2013

<http://archive.org/details/riskanalysesofhe19918boot>

Risk analyses of heat units available for corn production in the Maritime Provinces

A. BOOTSMA
Land Resource Research Centre
Ottawa, Ontario

Technical Bulletin 1991-8E
LRRC Contribution 90-51

Research Branch
Agriculture Canada
1991

Copies of this publication are available from
Director
Land Resource Research Centre
Research Branch, Agriculture Canada
Ottawa, Ontario
K1A 0C6

Produced by Research Program Service

©Minister of Supply and Services Canada 1991
Cat. No. A54-8/1991-8E
ISBN 0-662-18669-9

Également disponible en français sous le titre
*Analyses des risques relatifs aux unités thermiques
effectives pour la production de maïs dans les provinces Maritimes*

Cover illustration
The dots on the map represent
Agriculture Canada research
establishments.

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF FIGURES	iv
LIST OF TABLES	iv
LIST OF APPENDICES	v
FOREWORD	vi
SUMMARY	vi
INTRODUCTION	1
DATA AND PROCEDURES	1
Station Selection and Climatic Data	1
Corn Heat Unit Calculations	1
Seeding Date Estimation	2
RESULTS AND ANALYSES	5
Individual Station Analyses	5
Yearly statistics generated	5
Results for selected probability levels	5
Probabilities of selected CHU thresholds	5
Interpretation of results for hybrid selection	6
Geographic Distribution of Corn Heat Unit in the Maritimes	6
CHU Ratings of Recommended Hybrids	10
SUMMARY AND CONCLUSIONS	13
REFERENCES	13

LIST OF FIGURES

<u>FIGURE</u>		<u>PAGE</u>
Fig. 1.	Location of climate stations used in Corn Heat Unit study.	3
Fig. 2.	Average Corn Heat Units available for silage corn production in the Maritimes.	7
Fig. 3.	Average Corn Heat Units available for grain corn production in the Maritimes.	8
Fig. 4.	Probability of receiving the minimum Corn Heat Units required for grain corn production in the Maritimes.	11

LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
Table 1.	Climate stations used in risk analyses of available CHU for the Maritime provinces.	2
Table 2.	Average seeding dates for corn estimated from the date when the mean daily air temperature first exceeds 11.0°C in spring and as observed from regional trials.	4
Table 3.	Calculated CHU at three risk levels for two harvest date criteria in relation to average CHU available for silage corn.	9
Table 4.	Calculated CHU at three risk levels in relation to average CHU available for grain corn.	9
Table 5.	Probability that CHU thresholds for silage and grain are exceeded in relation to average CHU available.	10
Table 6.	Estimated Corn Heat Unit requirements for corn hybrids recommended in 1990 for silage production in the Maritimes.	11
Table 7.	Estimated Corn Heat Unit requirement for corn hybrids recommended in 1990 for grain production in the Maritimes.	12

LIST OF APPENDICES

<u>APPENDIX</u>		<u>PAGE</u>
Appendix 1.	Estimated seeding dates and harvesting dates and accumulated Corn Heat Units for three harvest date criteria at 37 stations in the Maritimes.	14
Appendix 2.	Estimated seeding and harvesting dates, growing season lengths and accumulated Corn Heat Units for three harvest date criteria at selected risk levels for 37 stations in the Maritimes.	33
Appendix 3.	Probability of accumulated Corn Heat Units exceeding selected threshold levels for three harvest date criteria at 37 stations in the Maritimes.	46
Appendix 4a.	Regression relationships between average CHU and CHU at selected probability levels.	49
Appendix 4b.	Regression relationships between average CHU and the probability that selected CHU threshold values are exceeded.	49

ACKNOWLEDGEMENT

Computer data processing support for this project by the agrometeorological data processing group of the Land Resource Research Centre under the supervision of Mr. D. Chaput is gratefully acknowledged.

FOREWORD

The application of climate/weather information in management decisions at the farm level has become an important factor in today's complex farming methods. Nowhere is this more evident than in the area of decision-making with respect to corn production in marginal areas. Because of the importance of corn heat units (CHU) for rating and selecting suitable hybrids and for rating land suitability for silage and/or grain production, the Atlantic Committee on Agrometeorology (A.C.A.) expressed a need for more complete information on the variability of CHU over time and space than has been available up to now. This study was undertaken to satisfy this need. The guidance and feedback received from members of the A.C.A. throughout the course of this study have been very much appreciated.

SUMMARY

Thirty years of daily meteorological data from 37 locations in the Maritime provinces were analyzed to determine the heat units available for silage and grain corn production (CHU). Dates for starting and ending seasonal CHU accumulations were estimated for each year at each location. Yearly data were then subjected to probability analyses to determine availability of CHU at various risk levels. Average CHU available for silage corn ranged from over 2600 in parts of the Annapolis and Saint John River Valleys, to less than 2000 in northern New Brunswick and parts of southern and eastern Nova Scotia. CHU available for grain production ranged from 2800 to less than 2200 for these same areas, respectively.

Linear regression equations ($R^2 > 0.90$ in most cases) were used i) to estimate available CHU for selected probability levels from the mean value and ii) to estimate the probability of selected CHU thresholds being exceeded. The probability of receiving the minimum amount of CHU for grain corn production ranged from 100% in part of the Annapolis and Saint John River Valleys to less than 60% in north-western New Brunswick, Prince Edward Island, south and southeastern Nova Scotia and Cape Breton Island.

Heat unit requirements of corn hybrids recommended for silage and grain production in 1990 were evaluated. Hybrids require 2300-2500 CHU to reach 30-35% dry matter content in the whole plant for silage. Dry matter contents of 20-25% can be achieved with about 300 fewer CHU. Grain hybrids require 2300-2650 CHU to reach 35% moisture content in the grain. By linking hybrid requirements to the availability of CHU on a probability basis, the results of this study become very useful as an aid in assessing the potential for silage and/or grain corn production, evaluating hybrid performance and selecting appropriate hybrids in the Maritime region.

INTRODUCTION

The performance of corn hybrids for production of silage and/or grain in the Maritime provinces is highly dependent on the availability of Corn Heat Units (CHU) during the growing season. Moderately cool and relatively short growing seasons limit the amount of heat available for corn development, so that only early-maturing hybrids are generally suited to the region (Atlantic Corn Hybrid Evaluation Committee, 1990). Average CHU available for silage corn production were previously determined and displayed geographically for the Maritime provinces (Bootsma et al. 1979). Average CHU ratings can provide useful information for recommending hybrids suitable for production in an area if the CHU requirements of the hybrids are known (Brown, 1975). However, to determine the risk factor in corn production as a result of year to year variability in the weather, it is important to evaluate available CHU on a probability basis. The intent of this bulletin is to present information on the regional and seasonal variability in available CHU in the corn growing regions of the Maritimes and describe the CHU availability at different probability or risk levels. This information, when combined with known CHU requirements for hybrids, can help growers assess the likelihood that silage and/or grain corn with acceptable maturity can be produced using recommended hybrids.

DATA AND PROCEDURES

Station Selection and Climatic Data

Thirty-seven climate stations were selected for this study (Table 1, Figure 1), most of which had daily maximum and minimum air temperature records for the 1956-1985 period. This 30-year period was considered of sufficient length for meaningful probability analyses, while not too long to be significantly influenced by long term climatic change. Several stations had fewer than 30 years of data due to missing records during this period (i.e. Woodstock, N.B., 26 yrs; Digby Prim Point, N.S., 29 yrs; Alliston, P.E.I., 26 yrs). The selected stations cover most of the areas where corn is grown in the Maritimes. Station data were available from a computer archive of daily climatological records maintained by Agriculture Canada, Land Resource Research Centre in Ottawa. Daily climatological records were originally supplied to Agriculture Canada by the Atmospheric Environment Service, Downsview, Ontario. Missing data were estimated using nearby stations.

Corn Heat Unit Calculations

Corn Heat Units were calculated from daily maximum and minimum air temperatures using the formula developed by Brown (1975). Daily values were accumulated from estimated seeding dates to three different ending (harvest) dates in the fall. The harvest date criteria used to end accumulations in the fall were as follows:

Table 1. Climate stations used in risk analyses of available CHU for the Maritime provinces.

No.*	Station name	No.	Station name
<u>NEW BRUNSWICK</u>		<u>NOVA SCOTIA</u>	
16	Acadia Forest Exp St	32	Baddeck
12	Alma	31	Collegeville
5	Aroostook	20	Digby Prim Point
2	Bathurst	23	Greenwood A
8	Chatham A	24	Kentville CDA
7	Doaktown	21	Meteghan River
1	Edmunston	25	Mount Uniacke
17	Fredericton CDA	30	Nappan CDA
15	Gagetown 2	33	Northeast Margaree
4	Grandfalls Drummond	29	Parrsboro
18	Harvey Station	26	St. Margaret's Bay
14	Minto	34	Sydney A
10	Moncton	28	Truro
3	Nepisiguit Falls	27	Upper Stewiacke
9	Rexton	22	Yarmouth A
11	Sackville		
19	Saint John A		<u>PRINCE EDWARD ISLAND</u>
13	Sussex		
6	Woodstock	37	Alliston
		36	Charlottetown CDA
		35	Summerside A

* Corresponding to number shown on Figure 1.

- i) Date of first occurrence of 0°C or Oct. 10, whichever is earlier;
- ii) Date of first occurrence of -1°C or Oct. 10, whichever is earlier;
- iii) Date of first occurrence of -2°C or Nov. 31, whichever is earlier.

Criteria (i) and (ii) were considered most applicable for silage corn, while criteria (iii) was considered most appropriate for evaluating CHU available for grain production. Oct. 10 and Nov. 31 were considered as reasonable cut-off dates for silage and grain corn harvests, respectively, in years when the first critical freeze was delayed beyond these dates. The procedure used to estimate a seeding date for each year at each location was considerably more complex and is described in the following section.

Seeding Date Estimation

Several steps were involved in estimating seeding dates on which to begin CHU accumulations in each year. Initially, an average seeding date was computed for each location by determining the date on which the mean daily temperature first equalled or exceeded 11.0°C in spring.



Figure 1. Location of climate stations used in Corn Heat Unit study. See Table 1 for station names.

Mean daily temperatures were estimated from mean monthly temperature normals (1951-80 period) using the Brooks (1943) sine wave interpolation procedure. The 11.0°C temperature threshold was found to correspond closely to the average date when corn hybrid performance trials were seeded at test locations in the region (Table 2).

The following regression relationship was used to determine the amount by which the actual seeding date varied from the normal value in a given year at a particular location:

$$\text{DIFF} = 2.24 + 2.056 X_1 - 0.2228 X_2 + 2.5310 X_3 \quad (1)$$

where DIFF is the difference (in days) between the average seeding date and the date for a given year at a location. The independent parameters are as follows:

Table 2. Average seeding dates for corn estimated from the date when the 30-year mean daily air temperature first exceeds 11.0°C in spring and as observed from regional trials.

Location	Average seeding date	
	Estimated	Observed
Fredericton	May 17	May 17
Sussex	May 20	May 16
Kentville	May 19	May 23
Nappan	May 25	May 30
Charlottetown	May 26	May 26

$X_1 = T_{\text{may}} - \bar{T}_{\text{may}}$ (°C), where T_{may} is the average May air temperature in a given year and \bar{T}_{may} is the 30-year (1951-80) normal average temperature for May;

$$X_2 = (X_1 + 5)^2 ;$$

$$X_3 = (P_1 + 1.0)^2, \text{ where } P_1 = \frac{P_{\text{may}} - \bar{P}_{\text{may}}}{\bar{P}_{\text{may}}}$$

and where

P_{may} is the total precipitation (mm) for May in a given year;
 \bar{P}_{may} is the 30-year (1951-80) normal precipitation (mm) for May.

Equation (1) was determined using stepwise multiple regression analyses (SAS Institute Inc., 1985). Seeding dates of regional corn silage trials at Fredericton, Sussex, Kentville, Nappan and Charlottetown were used to determine DIFF values for the regression. Data from the climate stations nearest each field trial location were used to determine the independent variables X_1 , X_2 and X_3 . In a few cases minor adjustments were made to observed seeding dates used in the regression since inspection of the daily climatological record indicated corn trials were not seeded at the most ideal time in some years. The R^2 value obtained by regression was 0.51, indicating that a considerable amount of the variance in seeding date was left unexplained. Nevertheless, the results were considered adequate given that a number of factors other than weather conditions could affect the date of seeding of regional silage trials such as work scheduling, availability of labour and machinery, local soil conditions, etc.

When equation (1) was used to estimate the starting date for CHU accumulations at each location, maximum limits of -12 to +14 days were set on the value for DIFF, since observed seeding dates which differed from the average date by more than these limits were very rare.

RESULTS AND ANALYSES

Individual Stations Analyses

Yearly statistics generated. Yearly calculations of estimated seeding dates, estimated harvest dates and accumulated CHU between these dates are shown in Appendix 1 for all 37 stations used in this study. The yearly values may be of interest for comparing individual seasons. However, values of these variables at selected risk levels are of considerably greater importance, particularly for the accumulated CHU, and are described in the next section. Available CHU can vary considerably from year to year. For example, CHU for silage at Kentville ranged from 2243 to 2856 CHU.

Results for selected risk levels. Yearly statistics as shown in Appendix 1 were processed to generate mean values and values at probability levels ranging from 5% to 95% for seeding dates, harvesting dates, growing season lengths and accumulated CHU (Appendix 2). Each variable was ranked from lowest to highest, earliest to latest or latest to earliest for all years of available data. Probabilities were computed for each ranked value by counting the number of years in which the values were (or were not) exceeded. Values were then computed for selected probability levels by linear interpolation.

Data for Kentville, N.S., will be used to explain how Appendix 2 should be interpreted. Seeding dates are equal to or later than the values in the Appendix at the given probability level. At Kentville, the estimated seeding date occurs on or after May 23 with a 10% probability (1 year in 10). Harvest date, growing season length and accumulated CHU are equal to or less than (or earlier than) the values shown at the given probability levels. For example, ending (harvest) dates for accumulating CHU for grain production (-2°C criterion) occur on or before October 14 with a 25% probability (1 year in 4) and on or before November 5 at a 90% probability (9 years in 10). On average, there are 2753 CHU available for grain production at Kentville; however, in 1 year in 10 (10% probability) there are equal to or fewer than 2606 CHU. The average growing season length for silage corn (0°C harvest date criterion) is 137 days; however, season lengths of 122 days or less occur with 5% probability (1 year in 20). The user can select the most appropriate risk level from Appendix 2 for management decisions. It is suggested that decisions should normally be based on risk levels in the 5% to 25% range.

Probabilities of selected CHU thresholds. Another way of interpreting the data is to determine the probability of exceeding specific threshold values of CHU at each location. These calculations were made for thresholds ranging from 1900 to 2700 CHU in increments of 200 CHU for all 37 stations (Appendix 3). At Kentville, N.S., for example, there is a 94% probability (about 19 years in 20) that 2500 CHU or more will be available for grain production, but only a 60% probability that 2700 CHU will be exceeded.

Interpretation of results for hybrid selection. The CHU values and probabilities in Appendices 2 and 3 can be used to help select hybrids of appropriate maturity for either silage or grain production when the information is combined with the CHU requirements of specific hybrids (see Tables 6 and 7). At Kentville, N.S. grain hybrids requiring 2600 CHU or less should be selected if the desired maturity is to be reached before a killing frost of -2°C in at least 9 years out of 10 (i.e. from Appendix 2 the probability of having fewer than 2600 CHU is about 10%). If maturity is desired before the first killing frost in at least 19 years out of 20, hybrids rated at 2500 CHU or less should be grown (i.e. from Appendix 3 there is a 94% probability of exceeding 2500 CHU). For silage corn, hybrids requiring 2370 CHU or less need to be selected if maturity must be reached before a 0°C frost 9 years out of 10 (Appendix 2). If failure to reach maturity before frost should occur in less than 1 year in 20 (5% probability), hybrids rated at about 2300 CHU or less must be selected (Appendix 2 or 3).

The information in Appendices 2 and 3 can also be useful in evaluating the on-farm performance of a selected hybrid in a given year. The decision to continue growing a selected hybrid in future years will depend partly upon the current year CHU accumulation. If the CHU available in the present year are unlikely to be equalled or exceeded (i.e. a low probability for the appropriate threshold in Appendix 3) then hybrids which barely reached acceptable levels of maturity should be replaced with earlier-maturing types in future years. However, if the season is abnormally cool and the probability of accumulating more CHU in subsequent years is high, then continued production of the selected hybrids in future years may be quite appropriate. Thus, this new CHU risk analyses can help growers make appropriate assessment of hybrid performance over the longer term, provided that CHU accumulation for a given season are available for comparison with Appendix 2 and/or Appendix 3 for the desired location.

Geographic Distribution of Corn Heat Units in the Maritimes

The average CHU available for silage corn production were previously mapped for the Maritime provinces (Bootsma et al. 1979). However, the present analyses can be used to re-assess the geographic distribution of available CHU's more accurately. Following are some of the improvements over previous analyses:

- i) CHU were calculated using daily maximum and minimum air temperatures in each year rather than the 30 year normals (using normals to compute CHU introduces some bias into the calculations.)
- ii) CHU calculations were performed for both silage and grain production systems rather than silage alone.
- iii) Calculations were made for a wide range of probability levels, recognizing that considerable year-to-year variability exists in available CHU.

Average CHU available for silage and grain production in the Maritimes are presented in Figures 2 and 3 respectively, based on results of this study. Since it was not possible to draw accurate isopleths using results from only 37 stations, the previously available

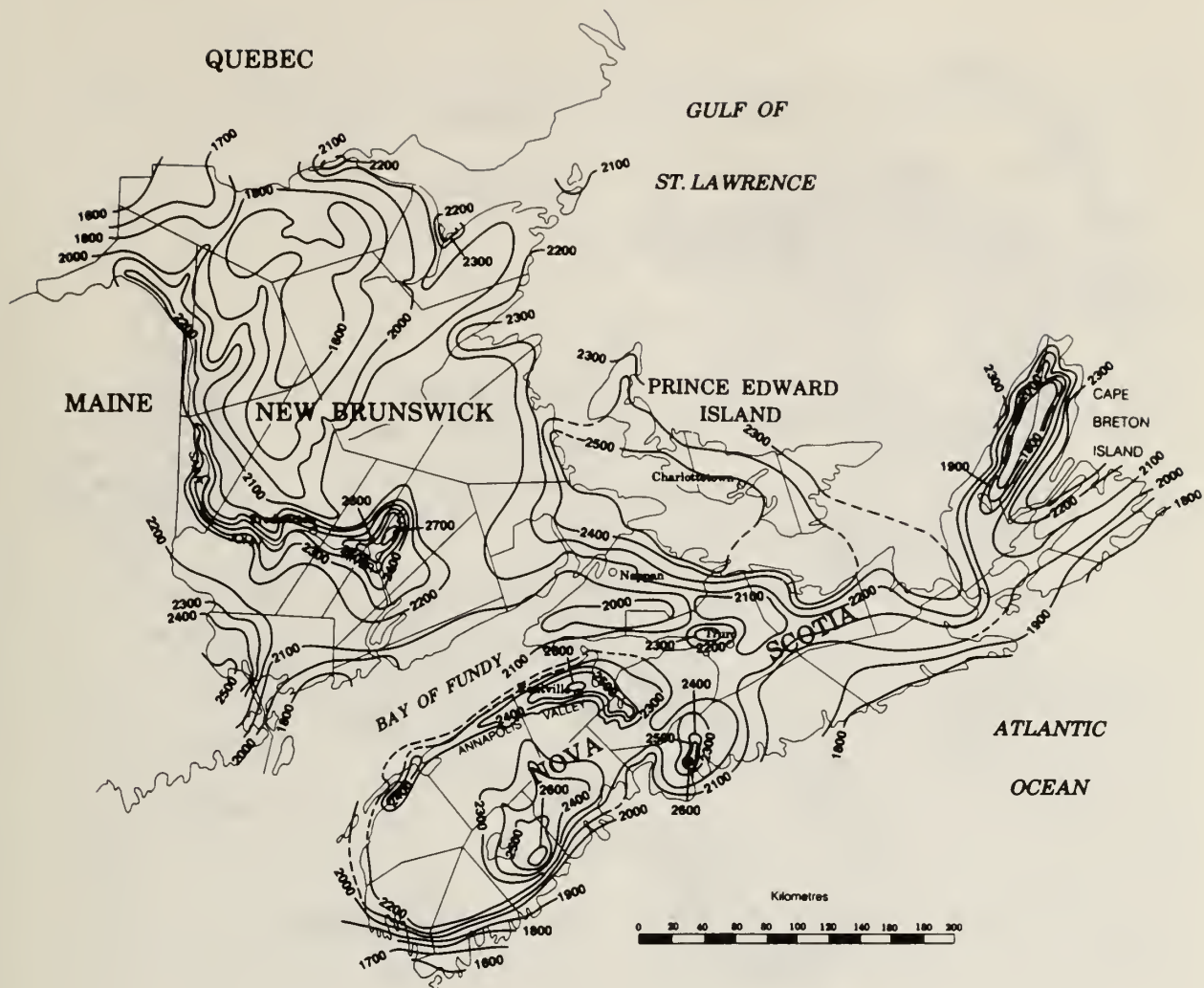


Figure 2. Average Corn Heat Units available for silage corn production in the Maritimes (1956-1985 normal period).

CHU map (Bootsma et al. 1979) was used as a guide to determine the relative position of the lines. Results for silage corn indicated very little change in the average available CHU from the previous map. Highest ratings exceeded 2600 CHU in the Annapolis Valley near Kentville and the Saint John River Valley below Fredericton. Prince Edward Island was generally rated at over 2400 CHU; however, CHU are less effective in maturing corn on P.E.I. than on the mainland. Hybrids grown on P.E.I. require about 150 additional CHU to reach maturity in comparison to the mainland.

Average CHU available for grain production (Fig. 3) ranged from 2800 in part of the Annapolis Valley and lower Saint John River Valley to less than 2200 CHU in northern New Brunswick and parts of southern and eastern Nova Scotia.

As indicated previously, average CHU values are not the most appropriate for making economical management decisions; it is important to know the geographic distribution of CHU at various probability levels.

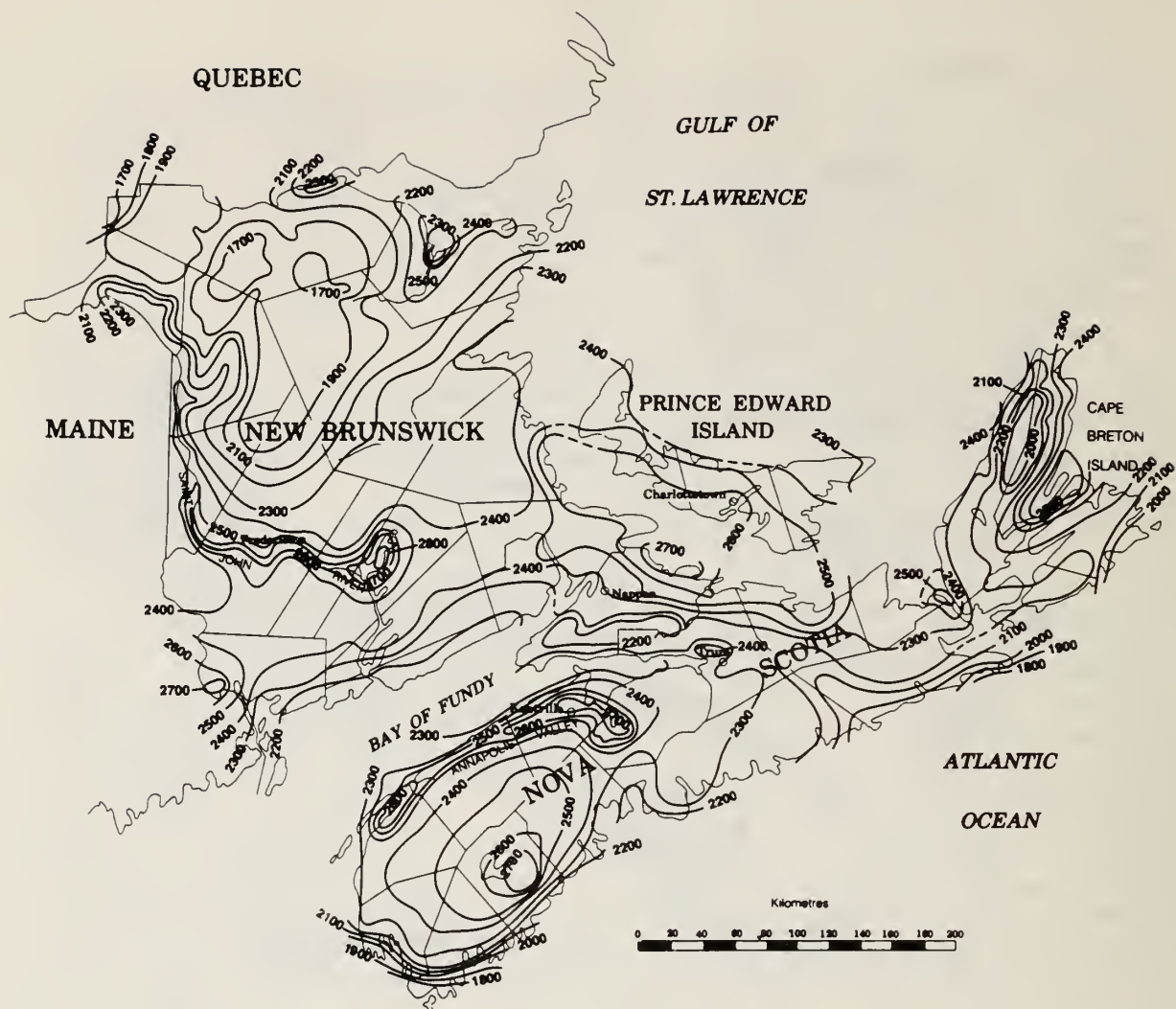


Figure 3. Average Corn Heat Units available for grain corn production in the Maritimes (1956-85 normal period).

Rather than preparing numerous maps for CHU at various probabilities, available CHU for selected probability levels were estimated from the average value. Linear regression analyses (SAS Institute Inc., 1985) were used to determine equations which could estimate available CHU for selected probabilities from the mean value based on the results from the 37 stations used in this study (Appendix 4a). Equations were also developed to estimate the probability of selected CHU threshold values being exceeded (Appendix 4b). In most cases, the equations had R^2 values exceeding 0.90, indicating that the average CHU values can be used reliably as a predictor for the other probability levels.

The CHU at various risk levels and the probability of selected CHU thresholds being exceeded are given in relation to the average CHU available in Tables 3, 4 and 5. By using these tables in conjunction with the maps in Figures 2 and 3, it is possible to estimate the CHU available at risk levels of 5, 10 and 25% and the probabilities of CHU exceeding thresholds of 2100 CHU for silage and 2300 CHU for grain in any part of the region.

Table 3. Calculated CHU at three risk levels for two harvest date criteria in relation to average CHU available for silage corn.

Risk level (%)	Harvest criterion (°C)	Corn Heat Units				
		Average CHU for silage (to 0°C)				
		1800	2000	2200	2400	2600
5	0	1234	1518	1803	2087	2372
10	0	1462	1694	1926	2158	2390
25	0	1672	1874	2077	2279	2482
5	-1	1449	1677	1904	2132	2359
10	-1	1640	1831	2021	2212	2403
25	-1	1774	1960	2145	2331	2516

Areas with an average of 2400 CHU available for silage production will have equal to or less than 2087 CHU in 1 year in 20 (5% probability) (Table 3). Similarly, areas with 2600 CHU for grain will have equal or less than 2378 CHU in 1 year in 10 (10% probability) (Table 4). The values in Table 5 can be used to assess the probability of obtaining sufficient CHU for grain or silage production, assuming 2300 CHU is the minimum grain requirement and 2100 CHU is the minimum for silage (see Table 6). Areas in Figure 3 with an average of 2400 CHU for grain will exceed the minimum CHU threshold of 2300 CHU in about 70% of the years. Average CHU for P.E.I. should be reduced by about 150-200 CHU before this probability is calculated, since CHU are less effective in maturing corn on the Island. Thus the 2400 and 2600 CHU isolines on P.E.I. in Figure 3 become 2200 and 2400, resulting in probabilities of 33% to 70% for exceeding the minimum grain requirement of 2300 CHU (Table 5). The probability of receiving the minimum CHU needed for grain production is geographically displayed in Fig. 4. The minimum requirement for silage corn of 2100 CHU is reached in about 80% of the years in mainland areas having an average of 2300 CHU available (Table 5).

Table 4. Calculated CHU at three risk levels in relation to average CHU available for grain corn.

Risk level (%)	Corn Heat Units				
	Average CHU for grain (to -2°C)				
	2000	2200	2400	2600	2800
5	1643	1855	2076	2297	2519
10	1728	1945	2162	2378	2595
25	1879	2078	2277	2476	2675

Table 5. Probability that CHU thresholds for silage and grain are exceeded in relation to average CHU available.

Average CHU accumulated or to 0°C or -2°C harvest criterion*	Probability (%) that CHU threshold is exceeded	
	CHU Threshold	
	2100 (silage)	2300 (grain)
1800	5.9	0.0
1900	24.6	0.0
2000	41.5	0.0
2100	56.6	9.6
2200	69.9	33.3
2300	81.3	53.4
2400	90.9	70.2
2500	98.7	83.4
2600	100.0	93.2
2700	100.0	99.6
2800	100.0	100.0

*For 2100 CHU threshold, use 0°C harvest criterion;
for 2300 CHU threshold, use -2°C harvest criterion.

CHU Ratings of Recommended Hybrids

If CHU are to be used to select suitable hybrids and to assist in evaluating the potential of silage and/or grain corn production for the Maritimes, it is necessary to know the requirements of recommended hybrids. Following field trials conducted in the 1970's, it was possible to rate the CHU requirements of the hybrids recommended for both silage and grain production in 1980, based on the relative maturity of recommended hybrids in comparison to the standard hybrids evaluated in the field trials (Bootsma et al. 1979). The CHU required to reach 35% kernel moisture (which is considered desirable for grain production) ranged from 2500-2700 for the earliest to the latest hybrid on the 1980 recommended list. The range of hybrids recommended for silage production required 2300-2500 CHU to achieve 30-35% dry matter in the whole plant. These requirements applied to mainland areas; 150 CHU needed to be added for Prince Edward Island and possibly other coastal areas.

Since 1980, most of the recommended hybrids, with the exception of Co-op S259, have been replaced by new ones for which new CHU ratings are needed. By comparing moisture contents of hybrids on the 1990 recommended list (Atlantic Corn Hybrid Evaluation Committee, 1990), with moisture contents of rated hybrids recommended for 1980 (Bootsma et al. 1979; Atlantic Corn Hybrid Evaluation Committee, 1980) it was possible to estimate the CHU requirements of the 1990 hybrids for both silage (Table 6) and grain production (Table 7).

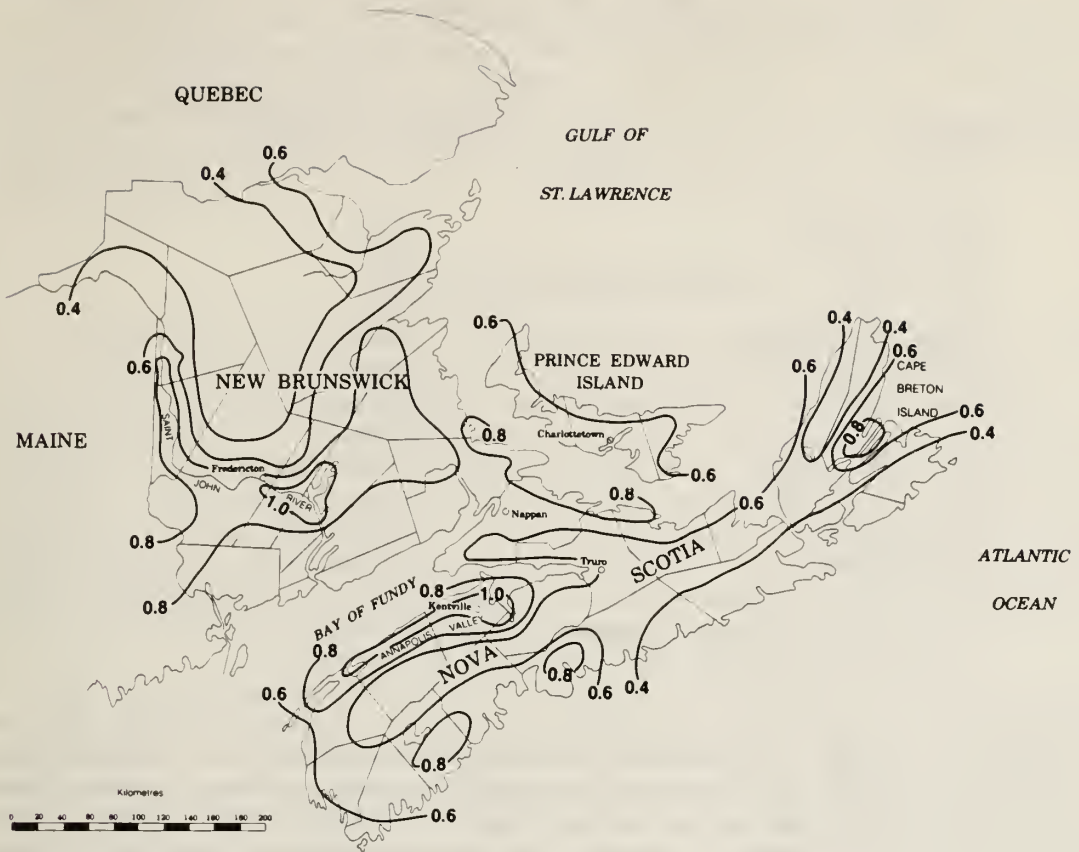


Figure 4. Probability of receiving the minimum Corn Heat Units required for grain corn production in the Maritimes (2300 CHU for mainland areas; 2500 CHU for Prince Edward Island).

Table 6. Estimated Corn Heat Unit requirements for corn hybrids recommended in 1990 for silage production in the Maritimes.

Hybrid	CHU rating* (30-35% whole plant dry matter)
Pickseed 2444	2300
Co-op 6312	2350
DK-291 (Dekalb)	2350
G-4017 (CG)	2350
K730 (Pride)	2350
3979 (Pioneer)	2400
Bishop 30-30	2450
Co-op S259	2500
3957 (Pioneer)	2500

* For Prince Edward Island and other coastal regions, add 150 heat units to the rating.

Table 7. Estimated Corn Heat Unit requirement for corn hybrids recommended in 1990 for grain production in the Maritimes.

Hybrid	CHU rating* (35% grain moisture content)
G-4017 (CG)	2300
K610 (Pride)	2350
Co-op 2335	2400
Co-op 2325	2400
DK-235 (Dekalb)	2400
3979 (Pioneer)	2450
Co-op 6312	2450
Pickseed 2477	2550
3954 (Pioneer)	2550
Hyland HL2219	2650
Co-op S259	2650
T778 (Dekalb)	2650

* For Prince Edward Island and other coastal regions, add 150 heat units to the rating.

The CHU ratings of hybrids presently recommended for silage production are still in the 2300-2500 CHU range although there are considerably more hybrids with a rating of 2350 CHU than in 1980. The relatively little change is due to the fact that whole plant dry matter content is very similar to that of the 1980 hybrids, although improvements may have been achieved in other performance criteria.

Considerable progress has been made in developing earlier hybrids suitable for grain production in the region. The new earliest hybrids have about 5% lower moisture content in the grain so that the CHU requirements have been reduced to the 2300-2650 CHU range. This should allow expansion of grain corn into some areas in which production was previously not feasible due to lack of CHU.

The CHU ratings for silage production are based on hybrids reaching 30-35% dry matter in the whole plant. CHU ratings can be approximated for other dry matter levels, if necessary, by adding or subtracting 100 CHU's for each dry matter increase or decrease of 3.5% (Bootsma et al., 1979) For example, whole plant dry matter levels of 20-25% can be achieved at about 300 CHU below the requirements in Table 6.

CHU ratings for grain production assume that the grain moisture content is 35%. Ratings for other moisture contents can be approximated by adjusting the values in Table 7 by about 100 CHU for each 3.3% change in grain moisture (Bootsma et al., 1979).

CHU ratings are often assigned to hybrids at the time of licensing. However, such ratings may not be the same as those shown here due to the fact that different maturity criteria or data from outside the Maritime region may have been used. Priority should be given to the results of hybrid trials within the Maritime region when selecting hybrids suited for production.

SUMMARY AND CONCLUSIONS

A detailed evaluation of the spatial and temporal variability in CHU available for silage and grain corn production has been completed for the Maritime provinces. This was accomplished by assessing CHU on a yearly basis at 37 locations in the region. Variations in seeding and harvesting dates between years and locations were considered in these analyses. Results provide information on CHU available at various probability levels ranging from 5 to 95% and the probability of exceeding CHU thresholds ranging from 1900 to 2700 CHU. By combining the results with a previously available CHU map for the region, the risks of availability of CHU were identified on a geographic basis.

CHU requirements have been determined for the most recently recommended hybrids for both silage and grain corn production in the region. When hybrid requirements are linked to CHU availability on a probability basis, this information becomes very useful for helping growers to assess the potential for silage and/or grain production, to select appropriate hybrids for their area, and to evaluate the performance of hybrids grown.

REFERENCES

- Atlantic Corn Hybrid Evaluation Committee. 1980. 1979 Atlantic corn hybrid evaluation trials. Extension leaflet published by authority of the Atlantic Provinces Agricultural Services Co-ordinating Committee.
- Atlantic Corn Hybrid Evaluation Committee. 1990. Atlantic corn hybrid evaluation trials - 1989 accumulated performance data and the 1990 recommendations. Publication No. 140, Agdex File No. 111/34.
- Bootsma, A., Gates, A.D. and Smith, P.J. 1979. Heat units for corn in the Maritime provinces. Atlantic Committee on Agrometeorology, Publication No. ACA 79-1, 6 pp.
- Brooks, C.E.P. 1943. Interpolation tables for daily values of meteorological elements. Quart. J. Royal Meteorol. Soc. 69(300):160-162.
- Brown, D.M. 1975. Heat units for corn in southern Ontario. Ontario Ministry of Agriculture and Food, Fact sheet 75-077, 4 pp.
- SAS Institute Inc. 1985. SAS User's Guide: Statistics, Version 5 Edition. SAS Institute Inc., Cary, NC. 956 pp.

Appendix 1. Estimated seeding dates and harvesting dates and accumulated Corn Heat Units for three harvest date criteria at 37 stations in the Maritimes.

Station : ACADIA FOREST EXP ST		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/21	9/10	9/22	9/27	1860	1975	1994
1957	5/19	9/10	9/25	10/14	1974	2216	2417
1958	5/21	9/14	9/30	10/03	2022	2207	2238
1959	5/17	9/14	9/14	9/14	2213	2213	2213
1960	5/19	9/15	9/16	9/16	2387	2400	2400
1961	5/25	9/17	9/17	9/17	2247	2247	2247
1962	5/18	9/17	9/17	9/22	2033	2033	2073
1963	5/19	9/05	9/05	9/14	2028	2028	2139
1964	5/18	9/13	9/13	9/13	2028	2028	2028
1965	5/19	8/31	8/31	8/31	1912	1912	1912
1966	5/20	9/13	9/13	9/13	2192	2192	2192
1967	5/26	9/07	9/12	10/07	2062	2126	2468
1968	5/18	9/15	9/16	10/06	2077	2091	2388
1969	5/19	9/14	9/14	9/14	2178	2178	2178
1970	5/22	9/03	9/03	10/06	1986	1986	2385
1971	5/19	9/02	9/02	9/26	1980	1980	2397
1972	5/20	9/13	9/21	9/21	2212	2315	2315
1973	5/21	9/14	9/18	9/22	2352	2400	2427
1974	5/18	9/06	9/15	9/17	1926	2074	2100
1975	5/20	9/01	9/11	9/15	2088	2246	2292
1976	5/21	9/10	9/10	9/25	2040	2040	2288
1977	5/19	9/08	9/12	9/12	2074	2122	2122
1978	5/16	8/25	8/28	9/14	1990	2031	2256
1979	6/03	9/01	9/20	9/20	1869	2179	2179
1980	5/18	9/17	9/25	9/25	2240	2341	2341
1981	5/22	9/10	9/22	10/06	2166	2322	2417
1982	5/18	8/22	8/29	10/05	1751	1862	2388
1983	5/26	9/14	9/16	9/16	2168	2190	2190
1984	5/23	9/08	9/17	9/17	2146	2274	2274
1985	5/25	9/12	9/12	10/07	2028	2028	2425

Station : ALMA		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/29	9/24	10/05	10/06	1841	1929	1936
1957	5/26	10/10	10/10	10/27	2231	2231	2372
1958	5/29	9/21	9/21	10/13	1927	1927	2164
1959	5/26	10/10	10/10	10/19	2232	2232	2280
1960	5/25	10/10	10/10	10/22	2355	2355	2401
1961	5/30	10/10	10/10	10/29	2182	2182	2298
1962	5/26	10/10	10/10	10/30	1935	1935	2012
1963	5/30	10/10	10/10	10/10	2022	2022	2022
1964	5/26	10/10	10/10	11/01	1893	1893	1991
1965	5/26	9/12	9/12	9/12	1771	1771	1771
1966	5/29	10/10	10/10	10/31	2143	2143	2250
1967	6/01	10/07	10/07	10/07	2127	2127	2127
1968	5/26	10/10	10/10	11/05	2277	2277	2442
1969	5/29	10/10	10/10	10/22	2245	2245	2329
1970	5/29	10/10	10/10	10/20	2243	2243	2351
1971	6/01	10/03	10/10	10/20	2169	2235	2313
1972	6/01	10/10	10/10	10/14	2182	2182	2187
1973	5/30	10/08	10/08	10/20	2181	2181	2241
1974	5/27	9/25	9/29	10/08	1919	1961	2041
1975	5/26	10/05	10/05	10/09	2255	2255	2266
1976	6/03	9/29	10/10	10/20	2106	2224	2263
1977	5/28	10/10	10/10	10/24	2246	2246	2305
1978	5/26	9/14	10/10	10/17	1956	2174	2235
1979	6/06	10/10	10/10	10/17	2218	2218	2226
1980	5/28	9/29	10/10	10/16	2035	2135	2158
1981	5/28	10/10	10/10	10/31	2257	2257	2364
1982	5/26	10/10	10/10	10/23	2242	2242	2307
1983	6/05	10/10	10/10	10/22	2348	2348	2430
1984	5/30	10/06	10/06	11/01	2297	2297	2432
1985	5/31	10/10	10/10	10/13	2199	2199	2212

Appendix 1 (cont'd)

Station : AROOSTOOK		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/15	9/10	9/23	9/26	1884	1997	2002
1957	5/16	9/25	9/25	10/14	2297	2297	2466
1958	5/17	9/14	9/20	10/06	2023	2099	2256
1959	5/15	9/14	9/14	9/14	2336	2336	2336
1960	5/16	9/16	9/17	10/02	2394	2401	2574
1961	5/27	9/17	10/10	10/22	2223	2553	2614
1962	5/17	9/20	10/10	10/15	2186	2336	2343
1963	5/18	9/05	9/14	9/14	2096	2200	2200
1964	5/18	9/12	9/13	10/01	2005	2008	2165
1965	5/17	9/12	9/19	9/28	2016	2101	2264
1966	5/19	9/20	9/20	10/14	2293	2293	2437
1967	5/21	9/11	9/26	10/07	2199	2415	2532
1968	5/16	10/05	10/06	10/30	2393	2395	2546
1969	5/18	9/14	9/20	10/05	2153	2218	2360
1970	5/21	10/06	10/06	10/20	2430	2430	2577
1971	5/17	9/26	9/27	9/27	2438	2441	2441
1972	5/19	9/24	9/24	10/02	2407	2407	2495
1973	5/23	9/21	9/21	9/22	2471	2471	2472
1974	5/18	9/17	9/19	9/24	2153	2167	2222
1975	5/18	9/15	10/03	10/05	2352	2583	2587
1976	5/28	9/25	9/25	10/12	2269	2269	2380
1977	5/16	9/20	10/08	10/08	2263	2362	2362
1978	5/15	9/10	9/14	9/30	2281	2314	2467
1979	5/18	9/20	9/20	9/24	2378	2378	2412
1980	5/17	9/25	9/25	9/25	2339	2339	2339
1981	5/17	10/06	10/06	10/12	2499	2499	2508
1982	5/15	10/03	10/03	10/10	2369	2369	2408
1983	5/24	9/16	10/10	10/10	2250	2526	2526
1984	5/28	9/17	9/22	9/27	2242	2287	2348
1985	5/19	9/12	10/08	10/08	2149	2525	2525

Station : BATHURST		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/22	9/24	9/24	10/12	1977	1977	2076
1957	5/23	9/27	10/10	10/22	2194	2297	2386
1958	5/23	9/19	9/20	10/21	2023	2029	2248
1959	5/23	9/16	9/16	10/15	2242	2242	2553
1960	5/24	9/17	10/10	10/15	2320	2514	2522
1961	5/29	10/10	10/10	10/22	2502	2502	2574
1962	5/22	9/24	10/05	10/23	2092	2206	2277
1963	5/23	9/14	9/24	10/10	2089	2171	2285
1964	5/24	9/13	9/20	9/29	1962	2017	2142
1965	5/24	9/19	10/01	10/07	2050	2170	2183
1966	5/23	9/13	9/29	10/22	2210	2373	2491
1967	5/29	10/07	10/08	10/21	2666	2666	2736
1968	5/22	10/07	10/10	11/03	2369	2384	2496
1969	5/25	9/20	10/10	10/20	2224	2421	2481
1970	5/23	10/10	10/10	10/20	2459	2459	2546
1971	5/22	9/26	9/28	10/20	2345	2356	2523
1972	5/21	9/24	10/02	10/14	2368	2441	2529
1973	5/29	9/22	9/22	10/09	2470	2470	2628
1974	5/19	9/19	9/24	9/25	2236	2295	2298
1975	5/19	10/05	10/10	10/10	2647	2664	2664
1976	5/23	10/01	10/10	10/25	2432	2504	2522
1977	5/28	9/13	10/08	10/14	2021	2231	2259
1978	5/19	9/14	9/30	9/30	2239	2400	2400
1979	5/24	10/10	10/10	10/12	2619	2619	2619
1980	5/20	9/25	9/25	9/25	2378	2378	2378
1981	5/22	9/27	10/10	10/18	2407	2457	2490
1982	5/19	10/03	10/08	10/08	2282	2317	2317
1983	5/25	10/10	10/10	10/11	2598	2598	2599
1984	5/24	9/28	9/28	9/28	2463	2463	2463
1985	5/24	10/10	10/10	10/13	2488	2488	2491

Appendix 1 (cont'd)

Station : CHATHAM A		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/19	9/24	9/27	9/27	2162	2167	2167
1957	5/20	10/10	10/10	10/22	2480	2480	2582
1958	5/20	9/20	10/10	10/16	2221	2439	2465
1959	5/18	9/14	9/18	10/15	2392	2406	2734
1960	5/19	9/17	10/05	10/14	2488	2694	2719
1961	5/25	10/10	10/10	10/21	2690	2690	2778
1962	5/19	9/22	10/10	10/23	2061	2190	2244
1963	5/19	9/14	9/29	10/09	2140	2283	2364
1964	5/20	9/13	9/29	10/06	2014	2189	2244
1965	5/20	9/19	9/28	10/03	2122	2260	2276
1966	5/20	9/29	10/10	10/14	2446	2518	2533
1967	5/29	10/06	10/07	10/08	2630	2630	2630
1968	5/19	10/06	10/07	11/02	2388	2391	2536
1969	5/20	9/20	10/10	10/19	2291	2492	2558
1970	5/22	9/03	10/10	10/19	2035	2470	2558
1971	5/20	9/26	9/28	9/28	2374	2387	2387
1972	5/22	9/24	9/29	10/10	2301	2345	2450
1973	5/27	9/21	9/22	9/22	2477	2480	2480
1974	5/20	9/17	9/25	9/25	2164	2240	2240
1975	5/21	10/04	10/05	10/05	2561	2562	2562
1976	5/23	9/25	10/01	10/24	2342	2375	2507
1977	5/21	9/13	10/10	10/14	2132	2337	2361
1978	5/18	9/14	9/14	9/30	2212	2212	2375
1979	5/26	9/20	10/10	10/17	2308	2502	2506
1980	5/21	9/24	9/24	9/25	2260	2260	2263
1981	5/25	9/27	9/27	10/13	2303	2303	2354
1982	5/19	10/07	10/08	10/08	2390	2391	2391
1983	5/28	10/10	10/10	10/11	2543	2543	2547
1984	5/24	9/27	9/27	9/28	2429	2429	2432
1985	5/23	10/08	10/10	10/12	2451	2472	2476

Station : DOAKTOWN		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/19	7/25	7/26	9/29	1008	1021	2041
1957	5/19	8/29	9/10	10/21	1839	2020	2455
1958	5/18	9/12	9/21	10/03	1849	1968	2134
1959	5/19	8/23	9/14	9/15	1697	2074	2079
1960	5/22	9/02	9/02	9/03	1921	1921	1932
1961	5/31	9/17	9/17	10/21	2067	2067	2424
1962	5/20	9/21	10/05	10/15	2082	2205	2226
1963	5/20	9/14	9/14	9/29	2191	2191	2375
1964	5/20	9/13	9/13	9/13	2090	2090	2090
1965	5/20	8/31	8/31	9/28	1883	1883	2277
1966	5/20	9/12	9/12	9/13	2168	2168	2178
1967	5/24	9/07	9/12	10/07	2113	2177	2530
1968	5/19	8/20	9/16	10/07	1638	2074	2355
1969	5/22	9/14	9/14	9/20	2185	2185	2254
1970	5/25	9/03	9/03	10/19	2016	2016	2561
1971	5/19	9/02	9/25	9/26	2007	2401	2406
1972	5/21	9/20	9/24	9/24	2273	2319	2319
1973	5/25	9/18	9/22	9/22	2480	2507	2507
1974	5/20	9/11	9/17	9/17	2046	2145	2145
1975	5/20	9/01	9/15	10/05	2076	2288	2569
1976	5/23	9/03	9/10	9/25	1968	2059	2296
1977	5/22	9/12	9/13	10/08	2133	2140	2361
1978	5/19	8/25	8/25	9/14	1980	1980	2235
1979	5/27	9/20	9/20	9/24	2300	2300	2338
1980	5/20	9/20	9/25	9/25	2308	2365	2365
1981	5/22	9/18	9/27	10/13	2334	2415	2486
1982	5/19	8/30	9/29	10/05	1920	2362	2426
1983	5/28	9/16	9/16	10/10	2241	2241	2570
1984	6/01	9/17	9/17	9/27	2203	2203	2332
1985	5/25	9/13	9/13	10/08	2092	2092	2490

Appendix 1 (cont'd)

Station : EDMUNDSTON FRASER CO Prov. : N.B.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/18	9/10	9/24	9/27	1869	1974	1977
1957	5/18	10/10	10/10	10/22	2349	2349	2430
1958	5/18	9/20	10/10	10/20	2078	2269	2290
1959	5/15	9/16	9/16	9/16	2370	2370	2370
1960	5/16	9/16	10/02	10/02	2370	2550	2550
1961	5/24	9/17	9/17	10/22	2176	2176	2609
1962	5/19	9/20	9/21	9/23	2159	2159	2160
1963	5/19	9/05	9/14	9/14	2068	2175	2175
1964	5/20	9/13	9/13	9/20	1938	1938	1978
1965	5/18	9/12	9/19	9/28	1996	2069	2229
1966	5/18	9/19	9/20	10/14	2289	2296	2405
1967	5/16	10/07	10/07	10/07	2508	2508	2508
1968	5/17	9/15	9/30	10/07	2048	2293	2355
1969	5/19	9/14	9/14	9/20	2127	2127	2179
1970	5/21	10/05	10/10	10/20	2321	2378	2462
1971	5/19	9/26	9/26	9/26	2214	2214	2214
1972	5/18	9/20	9/24	10/02	2237	2275	2347
1973	5/25	9/21	9/21	9/22	2423	2423	2426
1974	5/18	9/17	9/23	9/24	2157	2206	2206
1975	5/17	9/14	9/25	10/05	2355	2485	2587
1976	5/26	9/03	9/26	9/26	1983	2277	2277
1977	5/17	9/20	9/22	9/22	2182	2190	2190
1978	5/15	9/10	9/14	9/30	2286	2319	2466
1979	5/19	9/23	9/23	10/10	2297	2297	2465
1980	5/19	9/13	9/13	9/13	2181	2181	2181
1981	5/25	10/06	10/06	10/06	2563	2563	2563
1982	5/13	9/08	9/08	9/29	2392	2392	2699
1983	5/23	9/14	9/15	9/16	2137	2145	2153
1984	5/27	9/07	9/17	9/17	1962	2076	2076
1985	5/20	9/12	9/12	10/08	1981	1981	2310

Station : FREDERICTON CDA Prov. : N.B.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/16	9/24	9/24	9/27	2159	2159	2163
1957	5/15	9/25	10/10	10/22	2444	2614	2719
1958	5/15	10/03	10/03	10/16	2483	2483	2579
1959	5/13	9/14	9/14	9/14	2377	2377	2377
1960	5/17	10/02	10/10	10/13	2629	2674	2688
1961	5/30	10/06	10/10	11/01	2583	2643	2762
1962	5/14	9/22	9/22	10/16	2229	2229	2402
1963	5/15	9/14	9/24	10/10	2269	2379	2511
1964	5/14	9/16	9/22	10/02	2191	2234	2352
1965	5/15	9/19	9/28	9/30	2302	2458	2465
1966	5/15	9/27	10/04	10/14	2474	2524	2593
1967	5/18	10/07	10/07	10/08	2612	2612	2612
1968	5/14	10/07	10/10	10/23	2552	2571	2704
1969	5/15	9/20	10/05	10/16	2444	2612	2725
1970	5/17	10/10	10/10	10/20	2642	2642	2745
1971	5/16	9/27	9/27	9/27	2558	2558	2558
1972	5/16	9/24	9/24	10/11	2571	2571	2739
1973	5/19	9/22	9/22	10/20	2572	2572	2798
1974	5/14	9/17	9/17	9/25	2284	2284	2370
1975	5/16	10/05	10/05	10/05	2729	2729	2729
1976	5/18	9/25	9/29	10/12	2430	2464	2592
1977	5/15	9/26	9/26	10/08	2417	2417	2537
1978	5/12	9/15	9/15	9/19	2417	2417	2453
1979	5/29	9/20	9/25	10/12	2299	2347	2528
1980	5/14	9/25	9/25	9/29	2411	2411	2429
1981	5/19	10/06	10/10	10/13	2549	2563	2568
1982	5/14	10/10	10/10	10/12	2530	2530	2538
1983	5/22	10/10	10/10	10/17	2685	2685	2754
1984	5/19	9/28	10/06	10/07	2584	2619	2619
1985	5/19	10/08	10/10	10/13	2627	2647	2659

Appendix 1 (cont'd)

Station : GAGETOWN 2		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/15	9/27	9/27	10/12	2294	2294	2398
1957	5/13	10/10	10/10	10/22	2773	2773	2883
1958	5/14	10/03	10/06	10/14	2553	2573	2650
1959	5/11	9/14	10/10	10/15	2561	2934	2969
1960	5/12	9/17	10/05	10/14	2670	2898	2940
1961	5/19	10/10	10/10	11/03	2871	2871	2990
1962	5/12	10/10	10/10	10/15	2500	2500	2511
1963	5/14	9/14	9/14	10/10	2383	2383	2635
1964	5/12	9/20	10/06	10/28	2317	2503	2599
1965	5/13	9/28	9/28	9/28	2572	2572	2572
1966	5/13	10/10	10/10	10/30	2756	2756	2870
1967	5/21	10/07	10/07	11/07	2689	2689	2888
1968	5/12	10/10	10/10	11/05	2705	2705	2889
1969	5/13	10/05	10/10	10/24	2759	2817	2903
1970	5/16	10/10	10/10	10/20	2785	2785	2903
1971	5/15	9/27	9/28	10/20	2683	2690	2925
1972	5/15	10/10	10/10	10/11	2803	2803	2803
1973	5/15	9/22	10/10	10/20	2670	2845	2912
1974	5/12	9/25	10/09	10/11	2491	2624	2629
1975	5/14	10/05	10/05	10/09	2845	2845	2868
1976	5/16	9/29	10/10	10/12	2657	2793	2797
1977	5/16	10/08	10/08	10/08	2697	2697	2697
1978	5/11	9/30	9/30	9/30	2675	2675	2675
1979	5/29	9/20	10/10	10/17	2425	2680	2691
1980	5/12	9/25	9/25	9/25	2579	2579	2579
1981	5/16	10/10	10/10	10/13	2701	2701	2703
1982	5/12	10/10	10/10	10/23	2668	2668	2733
1983	5/25	10/10	10/10	10/20	2773	2773	2857
1984	5/17	10/06	10/06	11/01	2710	2710	2894
1985	5/23	10/10	10/10	10/13	2754	2754	2767

Station : GRAND FALLS DRUMMOND		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/17	9/23	9/26	9/27	1927	1927	1928
1957	5/17	10/05	10/06	10/22	2230	2241	2361
1958	5/18	9/20	10/10	10/20	2073	2266	2300
1959	5/14	9/14	9/16	10/15	2447	2449	2744
1960	5/17	9/18	10/02	10/05	2405	2546	2564
1961	5/24	10/10	10/10	10/21	2573	2573	2638
1962	5/21	9/21	9/21	10/15	2069	2069	2190
1963	5/19	9/14	9/23	9/23	2163	2255	2255
1964	5/21	9/12	9/13	10/05	1816	1819	2020
1965	5/19	9/12	9/28	9/28	2015	2248	2248
1966	5/19	9/20	9/20	10/25	2243	2243	2369
1967	5/21	9/12	10/07	10/07	2187	2492	2492
1968	5/18	10/06	10/06	10/07	2318	2318	2318
1969	5/20	9/14	9/14	9/20	2050	2050	2114
1970	5/27	10/10	10/10	10/20	2361	2361	2449
1971	5/18	9/26	9/27	9/27	2314	2316	2316
1972	5/22	9/20	9/20	10/02	2257	2257	2370
1973	5/26	9/21	9/21	9/22	2381	2381	2381
1974	5/21	9/23	9/24	9/24	2154	2155	2155
1975	5/20	9/14	9/15	10/05	2235	2239	2448
1976	5/29	9/03	9/03	9/25	1907	1907	2201
1977	5/18	9/20	10/08	10/08	2142	2235	2235
1978	5/16	8/25	9/10	9/14	1960	2148	2177
1979	5/21	9/20	9/20	9/20	2180	2180	2180
1980	5/20	9/16	9/16	9/25	2083	2083	2151
1981	5/19	9/18	10/10	10/12	2304	2389	2389
1982	5/17	9/29	9/29	10/07	2226	2226	2294
1983	5/26	9/14	9/25	10/10	2158	2290	2425
1984	5/31	9/22	9/27	10/06	2155	2213	2226
1985	5/23	10/08	10/10	10/13	2353	2367	2367

Appendix 1 (cont'd)

Station : HARVEY STATION		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/19	9/26	9/26	10/24	2100	2100	2288
1957	5/17	10/10	10/10	10/21	2578	2578	2673
1958	5/18	10/03	10/03	10/21	2300	2300	2377
1959	5/15	9/14	10/10	10/15	2399	2687	2715
1960	5/16	10/05	10/10	10/14	2700	2718	2728
1961	6/03	10/10	10/10	11/01	2568	2568	2662
1962	5/17	10/05	10/10	10/23	2147	2160	2212
1963	5/20	9/14	9/24	10/09	2116	2206	2303
1964	5/17	9/29	9/29	10/06	2207	2207	2251
1965	5/18	9/28	9/28	10/07	2336	2336	2352
1966	5/18	10/04	10/10	10/30	2414	2460	2540
1967	5/23	10/07	10/07	10/08	2504	2504	2504
1968	5/17	10/10	10/10	11/05	2417	2417	2549
1969	5/18	9/19	9/19	10/22	2279	2279	2496
1970	5/19	10/10	10/10	10/20	2511	2511	2596
1971	5/19	9/27	9/27	10/18	2354	2354	2547
1972	5/18	9/24	10/10	10/11	2463	2634	2634
1973	5/20	9/22	10/10	10/20	2542	2690	2740
1974	5/19	9/17	9/24	9/24	2286	2349	2349
1975	5/17	10/05	10/05	10/05	2703	2703	2703
1976	5/20	9/28	9/28	10/04	2519	2519	2574
1977	5/17	9/10	10/05	10/05	2107	2377	2377
1978	5/14	9/14	9/14	10/28	2536	2536	2930
1979	5/14	9/20	9/20	9/20	2228	2228	2228
1980	5/16	9/25	9/25	9/29	2603	2603	2626
1981	5/22	10/10	10/10	11/03	2446	2446	2498
1982	5/16	10/02	10/10	10/22	2426	2478	2528
1983	5/29	9/23	10/10	10/20	2386	2517	2578
1984	5/25	9/22	10/05	10/05	2332	2468	2468
1985	5/20	9/12	10/10	10/12	2097	2488	2498

Station : MINTO		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/18	9/26	9/27	9/27	2336	2340	2340
1957	5/14	9/26	10/10	10/14	2527	2709	2745
1958	5/16	10/07	10/07	10/13	2464	2464	2539
1959	5/14	9/14	9/15	10/15	2431	2440	2783
1960	5/14	9/16	9/17	10/14	2513	2523	2772
1961	5/22	9/30	10/10	11/01	2615	2748	2870
1962	5/14	9/22	10/10	10/26	2248	2416	2480
1963	5/15	9/14	9/14	10/10	2372	2372	2643
1964	5/15	9/29	10/10	11/01	2400	2475	2601
1965	5/15	9/19	10/07	10/07	2522	2722	2722
1966	5/15	10/10	10/10	10/31	2840	2840	2948
1967	5/19	10/07	10/08	11/07	2767	2770	2976
1968	5/14	10/10	10/10	11/06	2762	2762	2950
1969	5/16	10/05	10/10	10/22	2762	2813	2902
1970	5/18	10/10	10/10	10/20	2764	2764	2874
1971	5/15	9/27	10/10	10/18	2727	2880	2969
1972	5/17	10/10	10/10	10/11	2814	2814	2814
1973	5/16	9/22	10/10	10/20	2683	2878	2948
1974	5/14	9/25	9/25	10/14	2522	2522	2686
1975	5/17	10/09	10/09	10/09	2840	2840	2840
1976	5/16	10/01	10/10	10/27	2727	2832	2890
1977	5/15	10/08	10/08	10/24	2695	2695	2754
1978	5/13	9/14	9/30	10/18	2529	2715	2840
1979	5/28	10/10	10/10	11/16	2726	2726	2869
1980	5/14	9/25	9/25	9/28	2589	2589	2605
1981	5/16	10/10	10/10	10/25	2728	2728	2804
1982	5/14	10/09	10/09	10/10	2586	2586	2586
1983	5/23	10/10	10/10	10/11	2648	2648	2651
1984	5/17	9/17	9/27	9/27	2446	2581	2581
1985	5/17	9/14	9/14	10/13	2215	2215	2616

Appendix 1 (cont'd)

Station : MONCTON			Prov. : N.B.				
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/22	9/09	9/10	9/22	1893	1903	2037
1957	5/19	10/01	10/01	10/14	2294	2294	2429
1958	5/20	9/21	9/21	10/03	2182	2182	2336
1959	5/18	9/14	9/14	10/14	2308	2308	2681
1960	5/17	9/16	9/17	10/14	2370	2380	2619
1961	5/20	9/18	10/10	10/29	2369	2752	2863
1962	5/18	9/24	10/10	10/25	2141	2303	2371
1963	5/19	9/14	9/29	10/09	2177	2334	2426
1964	5/18	9/17	9/17	9/29	2128	2128	2269
1965	5/18	9/01	9/01	9/30	1953	1953	2358
1966	5/20	9/13	9/13	10/27	2285	2285	2689
1967	5/31	9/12	10/07	10/08	2202	2575	2575
1968	5/18	10/06	10/10	10/11	2481	2497	2505
1969	5/20	9/14	10/10	10/22	2253	2546	2625
1970	5/19	9/30	10/10	10/20	2490	2602	2712
1971	5/22	9/26	9/27	10/18	2408	2413	2629
1972	5/22	9/21	10/10	10/11	2421	2621	2621
1973	5/21	9/22	9/24	9/24	2535	2546	2546
1974	5/19	9/17	9/19	9/25	2205	2223	2292
1975	5/23	10/05	10/05	10/10	2617	2617	2640
1976	5/20	9/29	10/01	10/13	2523	2543	2666
1977	5/25	9/25	9/26	10/24	2256	2264	2461
1978	5/17	9/14	9/14	9/14	2217	2217	2217
1979	5/27	9/20	9/25	9/25	2322	2366	2366
1980	5/19	9/17	9/25	9/25	2216	2318	2318
1981	5/20	10/10	10/10	10/14	2462	2462	2468
1982	5/19	10/08	10/08	10/08	2486	2486	2486
1983	5/25	10/10	10/10	10/11	2662	2662	2664
1984	5/20	10/01	10/06	10/07	2691	2716	2717
1985	5/29	10/08	10/10	10/13	2507	2528	2540

Station : NEPISIGUIT FALLS			Prov. : N.B.				
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/22	9/10	9/10	9/10	1723	1723	1723
1957	5/23	9/26	9/26	9/26	2090	2090	2090
1958	5/24	9/14	9/14	9/19	1876	1876	1936
1959	5/22	9/14	9/15	9/15	2124	2126	2126
1960	5/25	9/17	9/17	10/04	2184	2184	2378
1961	6/03	9/17	10/10	10/22	2115	2466	2542
1962	5/23	9/21	10/05	10/13	2215	2339	2370
1963	5/24	9/05	9/14	9/14	1953	2061	2061
1964	5/25	9/13	9/13	9/13	1958	1958	1958
1965	5/25	9/12	9/30	10/03	1890	2092	2100
1966	5/23	9/21	9/21	10/22	2222	2222	2387
1967	5/26	9/12	9/20	10/06	1981	2118	2325
1968	5/23	9/30	10/07	10/07	2248	2320	2320
1969	5/24	9/19	9/20	10/05	2127	2132	2260
1970	5/24	9/03	10/10	10/20	2004	2362	2446
1971	5/23	9/26	9/26	9/26	2232	2232	2232
1972	5/24	9/20	9/29	10/11	2162	2254	2351
1973	6/01	9/22	9/25	10/09	2304	2321	2442
1974	5/24	9/11	9/19	9/25	1963	2056	2113
1975	5/23	9/14	10/05	10/09	2194	2439	2455
1976	5/30	9/22	9/22	9/22	2212	2212	2212
1977	5/24	9/13	10/08	10/14	1992	2194	2224
1978	5/22	9/17	9/27	9/27	2204	2304	2304
1979	5/27	9/20	9/20	9/20	2256	2256	2256
1980	5/24	9/28	9/28	9/29	2154	2154	2154
1981	5/29	9/27	10/10	10/12	2186	2226	2226
1982	5/22	9/29	10/07	10/08	2152	2226	2228
1983	5/29	9/28	10/10	10/10	2318	2444	2444
1984	6/04	9/17	9/27	10/05	2094	2197	2226
1985	5/25	10/08	10/08	10/13	2328	2328	2344

Appendix 1 (cont'd)

Station : REXTON		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/23	9/09	9/09	9/27	1873	1873	2037
1957	5/22	9/27	10/10	10/22	2245	2382	2509
1958	5/22	9/30	9/30	10/13	2264	2264	2363
1959	5/21	9/14	9/14	10/15	2256	2256	2602
1960	5/21	9/16	9/16	10/14	2320	2320	2577
1961	5/30	10/10	10/10	11/02	2609	2609	2729
1962	5/21	9/23	10/10	10/26	2046	2188	2245
1963	5/21	9/05	9/14	9/29	2009	2115	2275
1964	5/22	9/17	9/20	9/28	2024	2045	2151
1965	5/22	9/19	9/28	9/30	2052	2195	2198
1966	5/22	9/29	10/10	10/19	2373	2450	2515
1967	6/07	10/07	10/07	10/08	2433	2433	2433
1968	5/21	10/06	10/06	10/07	2285	2285	2289
1969	5/22	9/20	10/10	10/20	2215	2432	2502
1970	5/23	10/07	10/10	10/20	2383	2421	2526
1971	5/23	9/26	9/28	9/28	2253	2263	2263
1972	5/23	9/24	10/10	10/10	2193	2350	2350
1973	5/25	9/22	9/22	10/11	2531	2531	2679
1974	5/22	9/17	9/19	9/25	2196	2212	2274
1975	5/26	10/05	10/05	10/10	2534	2534	2551
1976	5/22	10/01	10/01	10/20	2447	2447	2596
1977	5/24	9/13	9/13	10/08	2142	2142	2377
1978	5/20	9/14	9/20	9/30	2283	2336	2447
1979	5/26	9/20	9/24	10/16	2396	2433	2624
1980	5/22	9/25	9/25	9/25	2324	2324	2324
1981	5/23	9/27	10/10	10/18	2441	2525	2566
1982	5/22	10/05	10/08	10/08	2379	2402	2402
1983	6/02	9/16	9/16	9/16	2191	2191	2191
1984	5/24	9/27	10/06	10/07	2557	2598	2598
1985	5/29	10/10	10/10	10/13	2600	2600	2606

Station : SACKVILLE		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/25	9/24	9/27	10/12	1987	1988	2122
1957	5/22	10/10	10/10	10/22	2476	2476	2582
1958	5/22	10/06	10/10	10/16	2329	2364	2397
1959	5/22	9/17	9/19	10/15	2193	2203	2548
1960	5/20	9/16	9/17	9/17	2313	2322	2322
1961	5/25	10/10	10/10	10/17	2631	2631	2705
1962	5/21	10/10	10/10	10/26	2178	2178	2230
1963	5/23	9/28	10/10	10/10	2214	2328	2328
1964	5/22	9/21	9/29	10/28	2008	2119	2260
1965	5/21	9/19	9/19	10/07	2055	2055	2216
1966	5/23	10/04	10/04	10/31	2307	2307	2483
1967	5/29	10/07	10/07	10/08	2473	2473	2473
1968	5/21	10/10	10/10	11/05	2402	2402	2561
1969	5/23	10/10	10/10	10/22	2443	2443	2522
1970	5/22	10/10	10/10	10/20	2418	2418	2529
1971	5/27	10/04	10/04	10/18	2324	2324	2467
1972	5/23	10/10	10/10	10/11	2485	2485	2485
1973	5/22	9/22	10/10	10/20	2359	2519	2581
1974	5/22	9/25	9/25	10/14	2206	2206	2356
1975	5/23	10/08	10/09	10/11	2485	2485	2487
1976	5/22	9/30	10/10	10/20	2382	2504	2542
1977	5/23	10/08	10/10	10/24	2406	2419	2489
1978	5/20	9/30	10/04	10/18	2305	2342	2442
1979	5/27	10/10	10/10	10/17	2466	2466	2473
1980	5/22	9/25	9/25	9/25	2155	2155	2155
1981	5/24	10/10	10/10	10/30	2360	2360	2465
1982	5/22	10/08	10/08	10/08	2284	2284	2284
1983	5/29	10/10	10/10	10/11	2383	2383	2385
1984	5/24	9/27	10/05	10/13	2196	2230	2257
1985	5/25	10/10	10/10	10/30	2252	2252	2348

Appendix 1 (cont'd)

Station : SAINT JOHN A		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/27	9/27	9/27	10/11	1840	1840	1940
1957	5/23	10/10	10/10	10/22	2316	2316	2412
1958	5/28	10/04	10/04	10/14	2086	2086	2151
1959	5/22	9/19	10/10	10/16	2073	2343	2380
1960	5/22	10/10	10/10	10/14	2418	2418	2427
1961	5/27	10/10	10/10	11/02	2330	2330	2434
1962	5/23	10/10	10/10	10/23	2021	2021	2069
1963	5/28	9/14	9/14	10/09	1871	1871	2082
1964	5/23	9/29	10/02	10/28	1887	1904	2015
1965	5/23	9/28	9/28	10/01	1955	1955	1961
1966	5/26	9/21	10/10	10/27	1928	2053	2119
1967	5/28	10/07	10/07	10/07	2098	2098	2098
1968	5/24	10/10	10/10	11/02	2205	2205	2359
1969	5/25	10/10	10/10	10/22	2256	2256	2319
1970	5/27	10/10	10/10	10/20	2214	2214	2313
1971	5/25	9/27	10/04	10/20	2150	2229	2346
1972	5/27	10/10	10/10	10/11	2179	2179	2179
1973	5/30	9/22	9/22	10/19	2182	2182	2377
1974	5/25	9/25	10/10	10/13	2037	2155	2160
1975	5/23	10/09	10/09	10/10	2246	2246	2247
1976	5/31	9/29	9/29	10/12	2126	2126	2251
1977	5/26	10/08	10/10	10/24	2112	2120	2169
1978	5/23	9/30	10/10	10/11	2080	2131	2136
1979	6/07	10/10	10/10	10/10	2148	2148	2148
1980	5/23	9/29	9/29	9/29	2093	2093	2093
1981	5/27	10/10	10/10	10/30	2157	2157	2242
1982	5/23	10/10	10/10	10/23	2142	2142	2201
1983	6/02	10/10	10/10	10/21	2363	2363	2432
1984	5/27	10/05	10/06	11/01	2271	2271	2406
1985	5/31	10/10	10/10	10/12	2245	2245	2256

Station : SUSSEX		Prov. : N.B.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/17	8/30	9/10	9/20	1694	1895	2011
1957	5/18	9/10	9/25	10/21	2069	2339	2613
1958	5/19	9/21	9/21	9/30	2131	2131	2240
1959	5/17	9/14	9/14	9/14	2305	2305	2305
1960	5/15	9/06	9/06	9/16	2224	2224	2411
1961	5/25	9/18	9/18	10/28	2272	2272	2784
1962	5/17	9/22	9/22	9/22	2188	2188	2188
1963	5/19	9/05	9/05	9/14	2051	2051	2167
1964	5/18	9/14	9/16	9/16	2096	2112	2112
1965	5/17	8/31	8/31	9/12	1917	1917	2093
1966	5/19	9/13	9/13	9/21	2223	2223	2332
1967	5/26	9/08	10/07	10/08	2105	2520	2520
1968	5/17	9/16	10/07	10/11	2108	2414	2443
1969	5/21	9/14	9/14	9/20	2226	2226	2306
1970	5/20	9/03	9/03	10/07	2071	2071	2509
1971	5/20	9/27	9/27	9/27	2431	2431	2431
1972	5/20	9/13	9/21	9/24	2271	2388	2423
1973	5/19	9/18	9/18	9/22	2431	2431	2465
1974	5/18	9/17	9/19	9/19	2128	2148	2148
1975	5/19	9/01	9/01	10/05	2096	2096	2594
1976	5/21	9/10	9/29	9/29	2151	2443	2443
1977	5/23	9/13	9/13	10/08	2190	2190	2449
1978	5/15	8/28	9/14	9/14	2046	2288	2288
1979	5/31	9/20	9/24	9/24	2275	2314	2314
1980	5/17	9/25	9/25	9/25	2370	2370	2370
1981	5/20	9/27	9/27	9/27	2408	2408	2408
1982	5/17	10/03	10/03	10/11	2445	2445	2489
1983	5/28	9/16	10/10	10/11	2243	2602	2607
1984	5/26	9/18	10/05	10/06	2375	2540	2540
1985	5/28	9/13	10/10	10/13	2049	2471	2483

Appendix 1 (cont'd)

Station : WOODSTOCK Prov. : N.B.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/10	9/10	9/26	9/27	2059	2203	2206
1957	5/11	9/10	10/10	10/13	2250	2737	2764
1958	5/11	9/20	9/20	10/04	2363	2363	2560
1959	5/10	9/14	9/15	9/16	2565	2568	2571
1960	5/05	9/06	9/25	10/02	2556	2851	2950
1961	5/27	9/17	10/10	10/22	2274	2637	2738
1962	5/11	9/21	9/21	10/15	2266	2266	2446
1963	5/14	9/14	9/14	9/24	2285	2285	2389
1964	5/13	9/13	9/16	10/06	2077	2107	2288
1965	5/12	9/19	9/28	9/28	2197	2365	2365
1970	5/16	10/06	10/10	10/20	2742	2799	2903
1971	5/14	9/27	9/27	9/27	2670	2670	2670
1972	5/13	9/24	10/02	10/02	2627	2727	2727
1973	5/18	9/21	9/21	9/22	2630	2630	2633
1974	5/12	9/19	9/24	9/24	2438	2499	2499
1975	5/13	10/03	10/05	10/05	2880	2891	2891
1976	5/23	10/01	10/10	10/12	2572	2669	2671
1977	5/11	10/08	10/08	10/08	2602	2602	2602
1978	5/10	9/10	9/14	9/30	2476	2515	2694
1979	5/26	9/20	9/20	9/20	2329	2329	2329
1980	5/12	9/16	9/20	9/25	2387	2432	2485
1981	5/13	9/22	9/22	10/06	2520	2520	2597
1982	5/11	10/03	10/03	10/03	2551	2551	2551
1983	5/22	9/14	9/15	9/16	2347	2357	2368
1984	5/26	9/17	9/17	9/17	2343	2343	2343
1985	5/15	9/12	9/12	10/12	2329	2329	2746

Station : BADDECK Prov. : N.S.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/29	10/10	10/10	11/23	2336	2336	2639
1957	5/26	10/10	10/10	11/13	2536	2536	2734
1958	5/30	10/10	10/10	11/25	2312	2312	2416
1959	5/26	10/10	10/10	10/23	2554	2554	2610
1960	5/22	10/10	10/10	11/25	2512	2512	2642
1961	6/04	10/10	10/10	11/11	2518	2518	2698
1962	5/25	10/10	10/10	10/31	2114	2114	2219
1963	5/26	10/10	10/10	11/21	2191	2191	2424
1964	5/26	10/02	10/10	10/27	1998	2059	2144
1965	5/25	9/29	10/01	11/02	2222	2227	2426
1966	5/27	10/10	10/10	11/01	2394	2394	2539
1967	5/30	10/10	10/10	11/07	2590	2590	2797
1968	5/25	10/10	10/10	11/07	2367	2367	2546
1969	5/25	10/07	10/10	10/20	2287	2320	2403
1970	5/26	10/10	10/10	11/09	2424	2424	2625
1971	5/26	9/29	10/10	10/20	2351	2453	2537
1972	5/30	10/05	10/05	10/22	2368	2368	2484
1973	5/29	10/10	10/10	10/25	2498	2498	2568
1974	5/25	9/25	10/10	10/14	2104	2246	2253
1975	5/26	10/10	10/10	10/11	2559	2559	2559
1976	5/31	10/10	10/10	10/28	2497	2497	2568
1977	5/26	10/10	10/10	11/08	2312	2312	2476
1978	5/25	10/10	10/10	10/31	2297	2297	2397
1979	5/30	10/10	10/10	10/20	2441	2441	2458
1980	5/28	9/30	10/10	11/03	2136	2244	2319
1981	5/29	10/10	10/10	10/30	2373	2373	2495
1982	5/26	10/08	10/08	10/08	2224	2224	2224
1983	5/27	10/10	10/10	11/01	2430	2430	2536
1984	5/28	10/06	10/06	10/27	2476	2476	2596
1985	5/30	10/10	10/10	10/24	2434	2434	2488

Appendix 1 (cont'd)

Station : COLLEGEVILLE		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/28	9/11	9/22	9/22	1853	2010	2010
1957	5/25	10/10	10/10	10/29	2367	2367	2493
1958	5/28	9/21	9/21	10/15	2068	2068	2325
1959	5/26	9/14	9/14	10/17	2078	2078	2425
1960	5/23	9/17	9/17	9/17	2242	2242	2242
1961	5/28	9/18	10/10	10/17	2255	2659	2747
1962	5/25	9/24	9/24	9/24	2059	2059	2059
1963	5/26	8/28	9/15	9/15	1662	1931	1931
1964	5/27	9/14	9/14	10/23	1894	1894	2269
1965	5/25	9/01	9/01	9/29	1777	1777	2179
1966	5/26	9/13	9/13	9/21	2079	2079	2176
1967	6/02	9/20	9/20	10/08	2327	2327	2565
1968	5/28	8/20	10/08	10/08	1528	2345	2345
1969	5/25	9/14	9/20	10/07	2055	2129	2332
1970	5/27	9/15	10/10	11/01	2160	2419	2579
1971	5/29	9/27	9/27	9/27	2277	2277	2277
1972	6/01	9/21	9/21	9/21	2121	2121	2121
1973	5/26	9/18	9/18	9/25	2236	2236	2301
1974	5/25	9/19	9/19	9/25	2057	2057	2136
1975	5/26	9/16	9/19	10/10	2217	2251	2516
1976	5/28	9/26	10/01	10/13	2405	2455	2594
1977	5/25	9/21	10/09	10/09	2131	2299	2299
1978	5/24	9/15	9/18	10/31	2092	2131	2455
1979	5/30	9/24	9/24	10/18	2243	2243	2428
1980	5/29	9/17	9/25	9/25	1968	2071	2071
1981	5/30	9/27	10/10	10/13	2184	2279	2280
1982	5/27	9/09	10/04	10/08	1827	2202	2226
1983	6/03	9/16	10/10	10/11	2084	2437	2446
1984	6/01	9/18	9/28	10/06	2248	2369	2415
1985	6/01	9/23	10/10	10/14	2098	2349	2363

Station : DIGBY PRIM POINT		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/27	10/10	10/10	10/26	2353	2353	2498
1957	5/20	10/10	10/10	11/12	2687	2687	2976
1958	5/23	10/10	10/10	10/20	2572	2572	2630
1959	5/20	10/10	10/10	10/22	2765	2765	2818
1960	5/18	10/10	10/10	10/14	2775	2775	2798
1961	5/23	10/10	10/10	11/12	2764	2764	2990
1962	5/19	10/10	10/10	11/21	2448	2448	2593
1963	5/22	10/02	10/10	10/10	2322	2390	2390
1964	5/19	9/20	10/10	11/19	2043	2264	2409
1965	5/19	10/10	10/10	11/02	2234	2234	2360
1966	5/24	10/10	10/10	11/16	2223	2223	2444
1967	5/24	10/10	10/10	11/11	2240	2240	2454
1968	5/22	10/10	10/10	11/27	2252	2252	2466
1969	5/24	10/10	10/10	11/22	2362	2362	2590
1970	5/22	10/10	10/10	12/01	2459	2459	2682
1971	5/24	10/10	10/10	11/09	2481	2481	2745
1972	5/26	10/10	10/10	10/22	2384	2384	2411
1973	5/25	10/10	10/10	11/07	2406	2406	2532
1974	5/23	10/10	10/10	11/26	2242	2242	2383
1975	5/21	10/10	10/10	11/01	2327	2327	2449
1976	5/27	10/10	10/10	11/30	2538	2538	2649
1977	5/23	10/10	10/10	11/28	2315	2315	2544
1978	5/22	10/10	10/10	10/30	2282	2282	2419
1979	6/02	10/10	10/10	11/17	2323	2323	2534
1980	5/22	10/10	10/10	11/20	2322	2322	2447
1981	5/23	10/10	10/10	11/13	2283	2283	2417
1982	5/21	10/10	10/10	11/16	2270	2270	2527
1983	5/27	10/10	10/10	12/01	2535	2535	2732
1984	5/23	10/10	10/10	11/04	2545	2545	2704

Appendix 1 (cont'd)

Station : GREENWOOD A		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/21	9/22	9/22	9/27	2225	2225	2243
1957	5/15	10/10	10/10	10/22	2661	2661	2769
1958	5/17	10/03	10/04	10/16	2592	2598	2698
1959	5/16	10/10	10/10	10/15	2886	2886	2927
1960	5/13	10/10	10/10	10/14	2945	2945	2960
1961	5/19	10/10	10/10	11/11	2878	2878	3092
1962	5/15	10/10	10/10	11/03	2486	2486	2594
1963	5/17	9/13	9/29	10/09	2273	2449	2558
1964	5/15	9/17	9/20	9/29	2157	2180	2307
1965	5/15	9/13	9/19	9/30	2131	2206	2370
1966	5/17	9/13	9/21	10/29	2252	2352	2661
1967	5/20	9/11	9/12	10/07	2282	2286	2651
1968	5/16	10/10	10/10	11/04	2539	2539	2750
1969	5/20	9/19	9/20	10/16	2349	2355	2675
1970	5/17	10/10	10/10	10/20	2721	2721	2852
1971	5/23	9/27	9/27	9/28	2474	2474	2478
1972	5/19	9/21	10/10	10/11	2431	2666	2666
1973	5/16	9/18	9/22	10/09	2591	2629	2803
1974	5/18	9/19	9/25	9/25	2192	2269	2269
1975	5/16	10/05	10/05	10/09	2653	2653	2670
1976	5/18	9/25	10/01	10/13	2520	2576	2726
1977	5/19	9/24	9/25	10/23	2379	2385	2636
1978	5/14	9/14	9/14	9/27	2323	2323	2466
1979	5/23	9/24	9/25	10/17	2405	2414	2620
1980	5/15	9/25	9/25	10/11	2380	2380	2559
1981	5/17	10/10	10/10	10/12	2532	2532	2533
1982	5/16	10/10	10/10	10/12	2557	2557	2562
1983	5/26	10/10	10/10	10/11	2670	2670	2676
1984	5/18	10/06	10/07	10/13	2722	2722	2768
1985	5/23	10/10	10/10	10/12	2574	2574	2590

Station : KENTVILLE CDA		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/15	9/22	9/22	9/27	2243	2243	2266
1957	5/16	10/10	10/10	10/22	2601	2601	2716
1958	5/16	10/03	10/04	10/16	2567	2574	2675
1959	5/16	10/10	10/10	10/19	2795	2795	2851
1960	5/14	10/10	10/10	10/22	2856	2856	2921
1961	5/22	10/10	10/10	11/11	2837	2837	3052
1962	5/15	10/10	10/10	11/18	2539	2539	2691
1963	5/16	10/02	10/10	10/10	2557	2644	2644
1964	5/16	9/29	10/10	11/01	2424	2508	2648
1965	5/16	9/19	10/01	10/18	2318	2488	2604
1966	5/18	10/10	10/10	10/31	2668	2668	2820
1967	5/23	10/07	10/08	10/08	2729	2729	2729
1968	5/16	10/10	10/10	11/05	2655	2655	2873
1969	5/17	9/20	10/10	10/24	2493	2739	2835
1970	5/17	10/10	10/10	10/28	2800	2800	2983
1971	5/27	9/28	10/04	10/20	2517	2585	2750
1972	5/19	10/10	10/10	10/14	2774	2774	2790
1973	5/17	9/25	10/10	10/29	2667	2822	2925
1974	5/17	9/25	9/25	10/14	2366	2366	2533
1975	5/16	9/16	10/06	10/10	2458	2757	2771
1976	5/17	10/10	10/10	10/20	2818	2818	2864
1977	5/20	10/10	10/10	10/24	2652	2652	2735
1978	5/14	9/14	9/27	10/11	2402	2543	2673
1979	5/23	9/24	10/10	10/17	2452	2657	2666
1980	5/15	9/25	9/29	10/16	2425	2457	2625
1981	5/20	10/10	10/10	10/13	2640	2640	2641
1982	5/16	10/10	10/10	10/23	2604	2604	2680
1983	5/23	10/10	10/10	10/23	2808	2808	2910
1984	5/17	10/07	10/07	10/31	2834	2834	3009
1985	5/24	10/10	10/10	10/13	2694	2694	2714

Appendix 1 (cont'd)

Station : METEGHAN RIVER		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/23	10/10	10/10	11/11	2084	2084	2336
1957	5/24	10/10	10/10	11/12	2404	2404	2576
1958	5/28	10/10	10/10	11/24	2287	2287	2412
1959	5/24	10/10	10/10	10/22	2445	2445	2498
1960	5/22	10/10	10/10	10/22	2366	2366	2441
1961	5/30	10/10	10/10	11/12	2322	2322	2515
1962	5/28	10/10	10/10	11/21	2054	2054	2187
1963	5/31	10/10	10/10	10/10	2114	2114	2114
1964	5/24	9/29	10/10	11/23	1862	1932	2085
1965	5/24	9/28	10/07	11/02	1835	1867	2014
1966	5/29	10/10	10/10	11/08	1904	1904	2094
1967	5/27	10/08	10/08	11/11	2072	2072	2310
1968	5/27	10/10	10/10	11/24	2106	2106	2333
1969	5/28	10/02	10/10	10/23	2111	2196	2289
1970	5/26	10/10	10/10	10/20	2209	2209	2307
1971	5/29	10/04	10/04	10/20	2159	2159	2319
1972	6/02	10/10	10/10	10/14	2124	2124	2136
1973	5/27	10/09	10/10	11/12	2312	2316	2466
1974	5/28	10/10	10/10	10/22	2065	2065	2107
1975	5/24	10/05	10/10	11/01	2139	2159	2298
1976	5/30	10/10	10/10	11/03	2322	2322	2411
1977	5/25	10/08	10/10	11/21	2070	2082	2345
1978	5/25	10/04	10/04	10/04	2053	2053	2053
1979	6/01	10/10	10/10	11/16	2239	2239	2414
1980	5/24	9/29	9/29	10/16	1987	1987	2148
1981	5/25	10/10	10/10	11/13	2186	2186	2337
1982	5/24	10/10	10/10	10/25	2092	2092	2160
1983	6/02	10/10	10/10	10/22	2294	2294	2397
1984	5/27	10/10	10/10	11/01	2308	2308	2460
1985	6/03	10/10	10/10	10/22	2117	2117	2183

Station : MOUNT UNIACKE		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/25	9/22	9/27	9/27	1970	1987	1987
1957	5/23	10/10	10/10	10/22	2296	2296	2393
1958	5/27	9/15	10/03	10/16	1932	2135	2224
1959	5/23	9/14	9/14	10/15	2104	2104	2464
1960	5/23	9/17	9/17	9/17	2179	2179	2179
1961	5/28	9/18	10/01	11/03	2112	2350	2639
1962	5/23	9/22	9/22	10/31	2022	2022	2239
1963	5/27	9/14	9/15	10/10	1977	1983	2234
1964	5/23	9/14	9/20	10/27	1871	1912	2187
1965	5/23	9/01	9/12	10/01	1756	1912	2130
1966	5/25	9/13	9/13	10/27	2029	2029	2368
1967	5/28	9/08	10/08	10/08	2029	2415	2415
1968	5/24	10/10	10/10	11/05	2379	2379	2549
1969	5/24	9/14	9/20	9/20	2035	2107	2107
1970	5/26	9/04	9/30	10/20	1871	2206	2417
1971	6/04	9/27	9/27	9/28	2140	2140	2144
1972	5/31	9/21	9/21	10/11	2127	2127	2343
1973	5/25	9/18	9/22	9/22	2275	2313	2313
1974	5/26	9/19	9/19	9/25	2049	2049	2132
1975	5/24	10/05	10/05	10/10	2404	2404	2421
1976	5/31	9/26	9/29	9/29	2266	2294	2294
1977	5/24	9/13	9/25	10/09	1946	2048	2181
1978	5/23	9/09	9/11	9/15	1937	1950	1982
1979	5/25	9/24	9/24	10/17	2279	2279	2476
1980	5/23	9/25	9/25	9/25	2104	2104	2104
1981	5/29	9/27	10/10	10/13	2222	2309	2309
1982	5/23	10/08	10/08	10/08	2290	2290	2290
1983	5/26	9/26	10/10	10/11	2338	2535	2538
1984	5/30	9/18	10/05	10/05	2212	2375	2375
1985	5/26	9/13	10/10	10/13	1986	2403	2421

Appendix 1 (cont'd)

Station : NAPPAN CDA Prov. : N.S.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/23	9/09	9/27	9/27	1896	2057	2057
1957	5/22	10/05	10/10	10/22	2352	2417	2515
1958	5/22	9/21	10/04	10/16	2046	2211	2300
1959	5/22	9/17	9/19	10/15	2257	2264	2609
1960	5/19	9/16	9/17	9/17	2343	2352	2352
1961	5/28	9/18	10/10	11/03	2147	2529	2658
1962	5/21	9/24	10/10	10/26	2027	2188	2254
1963	5/24	9/14	9/14	9/14	2071	2071	2071
1964	5/22	9/16	9/17	9/29	1962	1969	2110
1965	5/21	9/12	9/19	9/19	1973	2063	2063
1966	5/24	9/13	9/13	10/04	2049	2049	2251
1967	5/31	9/08	9/12	10/08	2010	2071	2447
1968	5/21	10/10	10/10	10/11	2346	2346	2353
1969	5/24	9/14	9/14	9/20	2149	2149	2220
1970	5/22	9/03	10/07	10/28	2027	2465	2659
1971	5/26	9/27	9/27	9/28	2394	2394	2400
1972	5/24	9/21	9/21	10/11	2291	2291	2489
1973	5/24	9/20	9/22	9/22	2375	2389	2389
1974	5/23	9/06	9/06	10/09	1894	1894	2329
1975	5/23	9/01	10/09	10/10	1958	2514	2514
1976	5/23	9/25	9/29	10/01	2355	2394	2414
1977	5/25	9/13	9/13	9/25	2089	2089	2201
1978	5/20	8/25	9/19	9/20	1849	2177	2184
1979	5/27	9/24	9/24	10/19	2343	2343	2557
1980	5/22	9/25	9/25	9/25	2203	2203	2203
1981	5/25	10/06	10/10	10/13	2303	2321	2321
1982	5/22	8/30	10/08	10/08	1820	2361	2361
1983	5/31	9/29	10/10	10/11	2361	2514	2519
1984	5/26	9/23	10/06	10/07	2400	2529	2529
1985	5/31	10/10	10/10	10/13	2424	2424	2436

Station : NORTHEAST MARGAREE Prov. : N.S.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	6/04	7/21	9/10	9/11	703	1562	1571
1957	5/28	8/23	8/23	10/14	1498	1498	2140
1958	6/06	9/10	9/13	9/22	1615	1651	1726
1959	5/28	9/17	9/17	9/17	1929	1929	1929
1960	5/25	8/05	9/17	9/17	1251	2051	2051
1961	6/02	9/08	9/18	9/18	1871	2052	2052
1962	5/28	9/24	9/24	10/05	1836	1836	1949
1963	5/29	9/15	9/15	10/02	1898	1898	2061
1964	5/29	9/14	9/14	9/14	1777	1777	1777
1965	5/28	9/01	9/01	9/01	1687	1687	1687
1966	5/30	9/04	9/04	9/13	1791	1791	1943
1967	5/31	9/12	9/12	10/23	2146	2146	2613
1968	5/26	9/16	9/16	10/11	1840	1840	2200
1969	5/28	9/15	9/15	9/19	1947	1947	2019
1970	5/27	9/15	9/16	10/21	2105	2116	2402
1971	5/27	9/06	9/28	9/28	1945	2289	2289
1972	6/02	9/13	9/23	10/05	1916	2018	2137
1973	5/28	9/18	9/18	9/18	2218	2218	2218
1974	5/23	9/10	9/17	9/25	1848	1964	2055
1975	5/26	8/30	9/01	9/16	1846	1868	2066
1976	5/29	8/19	8/19	10/01	1559	1559	2232
1977	5/30	9/09	9/21	9/21	1860	1967	1967
1978	5/26	8/26	8/26	9/22	1611	1611	1884
1979	5/31	9/24	9/24	9/24	2092	2092	2092
1980	5/30	9/17	9/17	9/30	1858	1858	1974
1981	5/26	8/26	8/26	10/13	1597	1597	2192
1982	5/26	8/05	8/05	10/04	1176	1176	2125
1983	5/28	9/17	9/17	10/01	2053	2053	2247
1984	6/02	9/18	9/18	10/11	2111	2111	2306
1985	6/03	9/16	9/23	10/05	1829	1941	2116

Appendix 1 (cont'd)

Station : FARRSBORO		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/25	9/27	9/27	9/27	2037	2037	2037
1957	5/24	10/10	10/10	10/22	2481	2481	2586
1958	5/25	9/30	10/07	10/07	2094	2146	2146
1959	5/24	9/14	10/10	10/17	2023	2322	2368
1960	5/23	9/17	10/10	10/14	2160	2399	2410
1961	5/27	9/18	9/18	10/29	1944	1944	2430
1962	5/23	9/22	10/10	10/16	1862	2031	2046
1963	5/27	9/05	9/14	9/14	1772	1883	1883
1964	5/24	9/14	9/16	9/20	1721	1735	1760
1965	5/23	8/31	9/01	9/19	1632	1640	1868
1966	5/26	9/04	9/13	9/21	1698	1823	1914
1967	5/29	9/07	9/08	9/12	1862	1871	1919
1968	5/23	8/12	10/07	10/11	1304	2187	2216
1969	5/26	9/14	9/14	10/23	1986	1986	2365
1970	5/26	9/03	10/10	10/20	1808	2272	2378
1971	5/28	9/27	9/27	9/28	2135	2135	2141
1972	5/28	9/21	9/21	10/11	2088	2088	2289
1973	5/25	9/22	9/22	9/22	2282	2282	2282
1974	5/23	9/19	9/19	10/09	1969	1969	2187
1975	5/23	10/05	10/10	10/10	2329	2349	2349
1976	5/26	9/29	9/29	10/20	2306	2306	2502
1977	5/25	9/13	10/09	10/24	1989	2254	2329
1978	5/23	9/14	9/14	9/30	2022	2022	2185
1979	6/01	9/24	10/10	10/17	2150	2346	2360
1980	5/24	9/25	9/25	10/11	2094	2094	2254
1981	5/25	9/27	10/10	10/13	2226	2323	2324
1982	5/23	10/08	10/08	10/08	2269	2269	2269
1983	6/02	10/08	10/10	10/11	2411	2425	2430
1984	5/26	9/27	10/06	10/07	2371	2424	2424
1985	5/29	9/12	10/10	10/13	1921	2335	2349

Station : ST MARGARET'S BAY		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/28	9/22	9/22	9/27	1899	1899	1929
1957	5/25	10/10	10/10	10/22	2241	2241	2349
1958	5/30	10/07	10/07	10/07	2208	2208	2208
1959	5/25	9/14	10/10	10/20	2075	2433	2492
1960	5/27	10/02	10/02	10/14	2295	2295	2374
1961	5/30	10/06	10/10	10/29	2313	2370	2516
1962	5/26	9/22	9/22	10/30	2003	2003	2270
1963	5/29	9/25	10/02	10/10	1935	2001	2075
1964	5/25	9/16	10/10	10/12	1789	2018	2035
1965	5/25	8/31	9/28	9/28	1612	1997	1997
1966	5/28	9/21	10/04	10/27	1964	2089	2237
1967	5/31	9/12	10/08	10/08	1898	2258	2258
1968	5/27	10/10	10/10	10/31	2332	2332	2530
1969	5/26	9/21	9/21	10/16	2129	2129	2417
1970	5/27	10/07	10/10	10/20	2278	2315	2428
1971	6/08	9/27	9/27	9/28	2076	2076	2081
1972	6/01	9/23	10/10	10/11	2080	2279	2279
1973	5/26	9/22	9/22	10/18	2182	2182	2407
1974	5/28	10/01	10/10	10/12	2154	2224	2227
1975	5/25	10/05	10/05	10/09	2339	2339	2353
1976	5/28	9/29	9/29	10/20	2337	2337	2524
1977	5/26	10/10	10/10	10/24	2219	2219	2308
1978	5/25	9/14	9/14	9/30	1959	1959	2120
1979	5/29	9/24	10/10	10/17	2132	2345	2353
1980	5/25	9/25	9/29	9/29	2044	2075	2075
1981	5/30	10/06	10/10	10/13	2217	2244	2249
1982	5/25	10/04	10/05	10/05	2129	2137	2137
1983	5/29	10/10	10/10	10/11	2491	2491	2498
1984	6/01	9/22	9/22	10/06	2207	2207	2338
1985	5/28	9/12	10/10	10/13	1898	2314	2332

Appendix 1 (cont'd)

Station : SYDNEY A Prov. : N.S.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	6/06	10/10	10/10	11/10	1974	1974	2158
1957	6/02	10/10	10/10	10/30	2241	2241	2357
1958	6/08	10/03	10/10	10/15	2077	2128	2159
1959	6/01	10/10	10/10	10/22	2245	2245	2292
1960	5/29	10/10	10/10	11/07	2470	2470	2548
1961	6/05	10/10	10/10	11/10	2454	2454	2676
1962	6/01	10/06	10/10	10/30	1860	1887	1954
1963	6/01	10/10	10/10	11/21	2072	2072	2300
1964	6/02	10/10	10/10	10/26	1835	1835	1919
1965	6/02	9/30	10/07	10/08	2031	2054	2054
1966	6/02	10/10	10/10	10/31	2195	2195	2326
1967	6/15	10/10	10/10	11/07	2397	2397	2637
1968	6/03	10/10	10/10	11/06	2138	2138	2264
1969	6/02	10/10	10/10	10/20	2216	2216	2294
1970	6/01	10/10	10/10	11/08	2209	2209	2370
1971	6/02	9/28	9/29	10/18	2126	2131	2284
1972	6/03	10/04	10/10	10/18	2155	2223	2248
1973	6/06	10/10	10/10	10/23	2230	2230	2271
1974	6/02	10/10	10/10	10/14	2016	2016	2022
1975	6/03	10/10	10/10	10/10	2231	2231	2231
1976	6/04	10/10	10/10	10/27	2288	2288	2344
1977	6/02	10/09	10/10	11/08	2084	2087	2227
1978	6/01	10/04	10/10	10/19	2073	2130	2181
1979	6/04	10/10	10/10	10/20	2231	2231	2253
1980	6/04	10/10	10/10	11/03	2031	2031	2092
1981	6/09	10/10	10/10	10/29	2057	2057	2157
1982	6/06	10/07	10/08	10/24	1987	1987	2045
1983	6/05	10/10	10/10	11/10	2299	2299	2422
1984	6/03	10/05	10/05	10/27	2255	2255	2341
1985	6/05	10/10	10/10	11/14	2148	2148	2216

Station : TRURO Prov. : N.S.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/24	9/10	9/22	9/22	1936	2089	2089
1957	5/22	9/29	10/10	10/22	2330	2456	2567
1958	5/25	9/21	9/30	10/16	2161	2271	2412
1959	5/22	9/14	9/19	9/19	2265	2286	2286
1960	5/18	9/17	10/10	10/14	2404	2668	2676
1961	5/28	9/18	9/18	10/17	2119	2119	2580
1962	5/24	9/22	10/10	10/30	1953	2120	2189
1963	5/25	9/14	9/15	9/25	1959	1966	2071
1964	5/26	9/14	9/20	10/02	1799	1841	1981
1965	5/24	9/01	9/01	9/01	1724	1724	1724
1966	5/26	9/12	9/13	9/21	1962	1969	2060
1967	6/01	9/08	9/12	10/07	2069	2119	2465
1968	5/24	10/06	10/10	11/02	2288	2308	2463
1969	5/25	9/14	9/14	9/20	2066	2066	2142
1970	5/26	9/30	10/10	10/20	2262	2381	2502
1971	6/01	9/26	9/26	9/27	2179	2179	2186
1972	5/28	9/20	9/21	10/11	2218	2226	2443
1973	5/25	9/22	9/22	9/22	2351	2351	2351
1974	5/26	9/19	9/25	9/25	2034	2112	2112
1975	5/25	9/19	10/09	10/09	2194	2447	2447
1976	5/28	9/26	10/01	10/19	2296	2340	2505
1977	5/26	9/13	10/09	10/24	1952	2208	2283
1978	5/24	8/25	9/15	9/19	1754	2025	2067
1979	5/30	9/24	9/24	10/17	2187	2187	2381
1980	5/25	9/24	9/24	10/11	2065	2065	2209
1981	5/27	9/27	10/10	10/13	2225	2309	2309
1982	5/24	10/04	10/07	10/07	2221	2245	2245
1983	5/31	10/10	10/10	10/11	2421	2421	2425
1984	5/28	9/23	10/06	10/07	2331	2434	2434
1985	5/28	10/08	10/10	10/13	2250	2265	2276

Appendix 1 (cont'd)

Station : UPPER STEWYCKE		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/24	9/10	9/10	9/22	1772	1772	1916
1957	5/22	7/19	9/19	9/29	933	1975	2134
1958	5/28	8/03	8/03	10/07	1144	1144	2186
1959	5/22	9/14	9/14	9/15	2155	2155	2155
1960	5/19	9/06	9/17	9/17	2089	2293	2293
1961	5/26	9/18	9/18	9/18	2207	2207	2207
1962	5/22	9/22	9/22	10/16	2095	2095	2291
1963	5/25	9/05	9/14	9/15	1925	2078	2086
1964	5/23	9/14	9/17	9/29	1966	1991	2138
1965	5/22	8/31	9/01	9/19	1856	1865	2125
1966	5/24	9/04	9/13	9/13	1936	2079	2079
1967	5/30	9/01	9/01	10/08	2040	2040	2564
1968	5/23	8/12	10/06	10/31	1440	2401	2609
1969	5/23	9/14	9/15	9/20	2174	2182	2255
1970	5/25	9/30	10/10	10/20	2387	2512	2650
1971	5/29	9/06	9/26	9/27	1982	2342	2350
1972	5/28	9/21	9/21	9/21	2252	2252	2252
1973	5/23	9/18	9/22	9/22	2357	2406	2406
1974	5/24	9/19	9/25	9/25	2099	2185	2185
1975	5/23	9/16	9/16	10/06	2177	2177	2483
1976	5/24	9/26	9/26	9/29	2404	2404	2441
1977	5/23	9/12	9/12	10/24	2109	2109	2529
1978	5/21	8/25	8/25	9/15	1849	1849	2153
1979	5/27	9/19	9/24	10/17	2330	2380	2623
1980	5/24	9/25	9/25	9/25	2181	2181	2181
1981	5/26	8/26	9/27	10/12	1833	2377	2485
1982	5/23	8/30	10/06	10/08	1836	2395	2411
1983	5/28	9/16	9/16	10/11	2201	2201	2570
1984	5/26	9/17	9/17	10/06	2354	2354	2552
1985	5/26	9/12	10/08	10/14	2011	2399	2427

Station : YARMOUTH A		Prov. : N.S.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/28	10/10	10/10	10/26	2067	2067	2177
1957	5/26	10/10	10/10	11/26	2252	2252	2501
1958	5/30	10/10	10/10	11/25	2081	2081	2204
1959	5/24	10/10	10/10	10/22	2326	2326	2385
1960	5/27	10/10	10/10	11/08	2348	2348	2495
1961	5/27	10/10	10/10	11/11	2291	2291	2485
1962	5/24	10/10	10/10	11/19	2082	2082	2205
1963	5/28	10/09	10/10	11/21	2100	2100	2329
1964	5/24	10/10	10/10	11/03	1910	1910	2037
1965	5/24	10/07	10/07	10/07	1899	1899	1899
1966	5/30	10/10	10/10	11/16	1968	1968	2159
1967	5/28	10/07	10/10	11/11	2144	2157	2353
1968	5/27	10/10	10/10	11/23	2235	2235	2461
1969	5/26	10/10	10/10	11/01	2340	2340	2470
1970	5/25	10/10	10/10	11/09	2297	2297	2476
1971	5/27	10/04	10/10	11/06	2243	2306	2539
1972	5/30	10/10	10/10	10/20	2249	2249	2278
1973	5/26	10/10	10/10	11/11	2337	2337	2483
1974	5/28	10/10	10/10	10/19	2130	2130	2169
1975	5/24	10/08	10/09	10/31	2225	2231	2377
1976	5/30	10/10	10/10	11/03	2302	2302	2384
1977	5/24	10/10	10/10	11/27	2134	2134	2367
1978	5/24	10/10	10/10	10/11	2131	2131	2136
1979	5/29	10/10	10/10	11/16	2334	2334	2514
1980	5/24	9/29	9/29	9/29	2081	2081	2081
1981	5/26	10/10	10/10	10/31	2254	2254	2377
1982	5/24	10/10	10/10	10/24	2191	2191	2268
1983	5/31	10/10	10/10	10/22	2343	2343	2434
1984	5/30	10/10	10/10	11/03	2277	2277	2462
1985	5/30	10/10	10/10	10/30	2271	2271	2379

Appendix 1 (cont'd)

Station : ALLISTON CDA EPF Prov. : P.E.I.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/28	9/27	10/10	10/26	2061	2187	2306
1957	5/25	10/10	10/10	10/29	2411	2411	2561
1958	5/24	10/10	10/10	10/22	2308	2308	2358
1959	5/23	10/10	10/10	10/19	2466	2466	2514
1960	5/21	10/10	10/10	10/22	2511	2511	2549
1961	5/27	10/10	10/10	11/11	2652	2652	2829
1962	5/23	10/10	10/10	10/31	2190	2190	2264
1963	5/26	10/10	10/10	11/20	2292	2292	2511
1964	5/24	10/10	10/10	11/15	2178	2178	2275
1965	5/23	10/01	10/07	10/18	2263	2288	2372
1966	5/26	10/10	10/10	10/31	2391	2391	2519
1967	5/31	10/10	10/10	11/07	2594	2594	2828
1968	5/25	10/10	10/10	11/10	2414	2414	2579
1969	5/24	10/10	10/10	10/23	2380	2380	2460
1970	5/24	10/10	10/10	11/07	2466	2466	2628
1971	6/01	9/28	10/10	10/20	2310	2400	2489
1972	5/29	10/05	10/10	10/22	2466	2539	2567
1973	5/25	10/10	10/10	11/06	2613	2613	2703
1974	5/26	9/24	10/10	10/14	2257	2417	2425
1975	5/26	10/10	10/10	10/11	2599	2599	2599
1976	5/25	10/10	10/10	10/25	2671	2671	2744
1977	5/24	10/08	10/10	11/08	2470	2481	2616
1978	5/22	10/04	10/04	10/31	2416	2416	2589
1979	5/26	10/10	10/10	11/06	2529	2529	2661
1980	5/24	9/25	10/10	10/16	2115	2233	2257
1981	5/24	10/10	10/10	10/25	2364	2364	2459

Station : CHARLOTTETOWN CDA Prov. : P.E.I.

Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/25	10/10	10/10	10/26	2337	2337	2463
1957	5/24	10/10	10/10	10/29	2557	2557	2681
1958	5/22	10/10	10/10	10/22	2529	2529	2578
1959	5/22	10/10	10/10	10/22	2692	2692	2745
1960	5/20	10/10	10/10	10/22	2832	2832	2867
1961	5/26	10/10	10/10	11/11	2738	2738	2915
1962	5/22	10/10	10/10	11/08	2229	2229	2318
1963	5/25	10/10	10/10	10/10	2358	2358	2358
1964	5/23	10/02	10/10	10/30	2243	2300	2385
1965	5/22	10/01	10/01	10/08	2335	2335	2367
1966	5/24	10/10	10/10	10/31	2545	2545	2672
1967	6/01	10/10	10/10	11/07	2688	2688	2918
1968	5/22	10/10	10/10	11/06	2453	2453	2596
1969	5/23	10/10	10/10	10/20	2514	2514	2591
1970	5/25	10/10	10/10	11/09	2526	2526	2697
1971	5/29	9/28	10/10	10/20	2353	2462	2546
1972	5/28	10/10	10/10	10/19	2561	2561	2584
1973	5/25	10/10	10/10	10/29	2641	2641	2704
1974	5/23	10/09	10/10	10/14	2445	2445	2452
1975	5/23	10/10	10/10	11/01	2692	2692	2786
1976	5/26	9/29	10/10	10/28	2550	2677	2732
1977	5/25	10/08	10/10	11/08	2424	2433	2562
1978	5/22	10/10	10/10	10/25	2491	2491	2586
1979	5/27	10/10	10/10	11/17	2622	2622	2750
1980	5/23	10/10	10/10	10/16	2301	2301	2322
1981	5/23	10/10	10/10	10/30	2534	2534	2634
1982	5/23	10/08	10/08	10/08	2375	2375	2375
1983	6/07	10/10	10/10	11/14	2530	2530	2667
1984	5/27	10/05	10/10	10/13	2553	2569	2584
1985	5/29	10/10	10/10	10/30	2564	2564	2647

Appendix 1 (cont'd)

Station : SUMMERSIDE A		Prov. : P.E.I.					
Year	Estimated seeding date (mo./day)	Estimated harvest date (mo./day)			Accumulated CHU to harvest		
		0°C	-1°C	-2°C	0°C	-1°C	-2°C
1956	5/27	10/10	10/10	10/26	2300	2300	2417
1957	5/25	10/10	10/10	10/28	2519	2519	2650
1958	5/24	10/10	10/10	10/22	2453	2453	2498
1959	5/24	10/10	10/10	10/22	2592	2592	2640
1960	5/21	10/10	10/10	10/22	2744	2744	2777
1961	5/29	10/10	10/10	11/11	2733	2733	2891
1962	5/23	10/10	10/10	11/21	2286	2286	2389
1963	5/23	10/09	10/10	11/20	2467	2467	2698
1964	5/24	10/10	10/10	11/14	2287	2287	2374
1965	5/22	10/10	10/10	10/29	2396	2396	2486
1966	5/24	10/10	10/10	10/31	2574	2574	2691
1967	5/29	10/10	10/10	11/07	2640	2640	2852
1968	5/22	10/10	10/10	11/15	2496	2496	2639
1969	5/23	10/10	10/10	10/20	2531	2531	2604
1970	5/24	10/10	10/10	11/08	2479	2479	2642
1971	5/29	10/10	10/10	10/20	2462	2462	2533
1972	5/27	10/10	10/10	10/13	2504	2504	2513
1973	5/24	10/10	10/10	11/05	2653	2653	2740
1974	5/22	10/10	10/10	10/19	2429	2429	2452
1975	5/24	10/09	10/10	10/31	2642	2642	2727
1976	5/23	10/10	10/10	10/28	2641	2641	2686
1977	5/24	10/10	10/10	11/15	2456	2456	2604
1978	5/22	10/10	10/10	10/24	2444	2444	2527
1979	5/28	10/10	10/10	11/17	2574	2574	2707
1980	5/23	9/29	10/10	11/03	2269	2351	2397
1981	5/23	10/10	10/10	10/31	2519	2519	2619
1982	5/24	10/10	10/10	11/10	2424	2424	2582
1983	5/31	10/10	10/10	11/13	2616	2616	2735
1984	5/26	10/05	10/10	11/01	2578	2591	2685
1985	5/26	10/10	10/10	11/11	2597	2597	2678

Appendix 2. Estimated seeding and harvesting dates, growing season length and accumulated Corn Heat Units for three harvest date criteria at selected risk levels for 37 stations in the Maritimes.

Station : ACADIA FOREST EXP ST			Prov. : N.B.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/21	5/30	5/26	5/22	5/20	5/18	5/18	5/17
Harvest date	(0°C)	mo/day	9/09	8/24	8/31	9/05	9/10	9/14	9/17	9/17
	(-1°C)	mo/day	9/14	8/29	8/31	9/11	9/15	9/19	9/25	9/27
	(-2°C)	mo/day	9/22	9/07	9/13	9/14	9/21	10/04	10/07	10/10
Growing season length	(0°C)	days	110	92	100	105	111	116	119	121
	(-1°C)	days	115	103	103	108	116	120	128	130
	(-2°C)	days	124	106	112	117	122	133	139	143
Accumulated CHU to harvest	(0°C)		2074	1811	1873	1985	2051	2182	2246	2368
	(-1°C)		2141	1890	1976	2028	2152	2246	2339	2400
	(-2°C)		2256	1957	2033	2168	2265	2390	2424	2445

Station : ALMA			Prov. : N.B.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/29	6/05	6/03	5/30	5/29	5/26	5/26	5/26
Harvest date	(0°C)	mo/day	10/05	9/13	9/21	10/02	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/07	9/17	9/30	10/08	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/19	9/25	10/07	10/13	10/20	10/28	11/01	11/03
Growing season length	(0°C)	days	128	109	114	123	131	135	136	136
	(-1°C)	days	130	111	124	128	132	136	136	136
	(-2°C)	days	142	118	129	134	143	152	156	160
Accumulated CHU to harvest	(0°C)		2134	1810	1896	2006	2182	2245	2295	2351
	(-1°C)		2156	1838	1927	2101	2209	2245	2295	2351
	(-2°C)		2224	1862	1993	2150	2257	2335	2427	2437

Station : AROOSTOOK			Prov. : N.B.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/19	5/28	5/27	5/20	5/18	5/16	5/15	5/15
Harvest date	(0°C)	mo/day	9/19	9/08	9/10	9/14	9/17	9/25	10/05	10/06
	(-1°C)	mo/day	9/26	9/14	9/14	9/20	9/25	10/06	10/10	10/10
	(-2°C)	mo/day	10/04	9/14	9/22	9/27	10/05	10/12	10/20	10/26
Growing season length	(0°C)	days	123	110	112	117	121	128	140	141
	(-1°C)	days	129	117	118	123	127	137	142	144
	(-2°C)	days	138	120	121	132	138	147	150	158
Accumulated CHU to harvest	(0°C)		2260	1951	2017	2153	2275	2382	2437	2484
	(-1°C)		2334	2003	2099	2256	2351	2433	2526	2567
	(-2°C)		2405	2092	2202	2338	2425	2525	2577	2599

Appendix 2 (cont'd)

Station : BATHURST			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/23	5/29	5/29	5/24	5/23	5/22	5/19	5/19
Harvest date	(0°C)	mo/day	9/26	9/13	9/13	9/19	9/25	10/06	10/10	10/10
	(-1°C)	mo/day	10/03	9/18	9/20	9/25	10/07	10/10	10/10	10/10
	(-2°C)	mo/day	10/14	9/25	9/28	10/09	10/14	10/21	10/23	10/29
Growing season length	(0°C)	days	125	109	112	117	126	134	138	138
	(-1°C)	days	132	115	118	127	133	138	140	142
	(-2°C)	days	142	127	127	137	143	149	153	158
Accumulated CHU to harvest	(0°C)		2312	1970	2021	2169	2333	2465	2617	2656
	(-1°C)		2370	1999	2043	2239	2392	2492	2617	2665
	(-2°C)		2439	2112	2190	2295	2491	2548	2627	2696

Station : CHATHAM A			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/22	5/28	5/27	5/23	5/20	5/19	5/19	5/18
Harvest date	(0°C)	mo/day	9/24	9/09	9/13	9/17	9/24	10/05	10/10	10/10
	(-1°C)	mo/day	10/03	9/16	9/22	9/27	10/05	10/10	10/10	10/10
	(-2°C)	mo/day	10/10	9/24	9/25	10/02	10/12	10/18	10/23	10/28
Growing season length	(0°C)	days	125	109	115	118	124	132	139	141
	(-1°C)	days	133	118	122	129	133	140	142	142
	(-2°C)	days	141	122	126	133	141	148	154	160
Accumulated CHU to harvest	(0°C)		2327	2026	2067	2164	2325	2458	2559	2657
	(-1°C)		2405	2179	2192	2277	2399	2495	2623	2692
	(-2°C)		2457	2207	2244	2359	2471	2558	2710	2754

Station : DOAKTOWN			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/22	5/31	5/28	5/24	5/20	5/19	5/19	5/19
Harvest date	(0°C)	mo/day	9/07	8/08	8/23	9/01	9/12	9/17	9/20	9/20
	(-1°C)	mo/day	9/14	8/12	8/31	9/12	9/15	9/21	9/27	10/02
	(-2°C)	mo/day	9/30	9/09	9/13	9/22	9/29	10/08	10/19	10/21
Growing season length	(0°C)	days	107	80	95	102	109	115	121	122
	(-1°C)	days	114	84	100	109	115	121	128	134
	(-2°C)	days	130	110	115	119	131	138	146	150
Accumulated CHU to harvest	(0°C)		2037	1355	1711	1921	2079	2194	2307	2400
	(-1°C)		2129	1495	1926	2049	2157	2291	2397	2456
	(-2°C)		2325	1992	2080	2214	2347	2463	2558	2569

Appendix 2 (cont'd)

Station : EDMUNDSTON FRASER CO				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/19	5/26	5/25	5/20	5/19	5/17	5/15	5/14
Harvest date	(0°C)	mo/day	9/18	9/04	9/07	9/12	9/16	9/20	10/06	10/08
	(-1°C)	mo/day	9/23	9/10	9/13	9/15	9/22	9/27	10/10	10/10
	(-2°C)	mo/day	9/30	9/14	9/16	9/22	9/29	10/07	10/20	10/22
Growing season length	(0°C)	days	121	101	109	115	120	124	136	143
	(-1°C)	days	126	113	114	117	124	131	143	144
	(-2°C)	days	133	114	116	123	133	142	151	155
Accumulated CHU to harvest	(0°C)		2201	1907	1964	2063	2182	2351	2420	2533
	(-1°C)		2255	1958	1990	2156	2272	2372	2506	2556
	(-2°C)		2328	1978	2084	2181	2329	2465	2585	2650

Station : FREDERICTON CDA				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/17	5/29	5/22	5/18	5/16	5/14	5/14	5/13
Harvest date	(0°C)	mo/day	9/27	9/14	9/15	9/20	9/26	10/06	10/10	10/10
	(-1°C)	mo/day	9/30	9/15	9/18	9/24	10/01	10/10	10/10	10/10
	(-2°C)	mo/day	10/09	9/17	9/25	10/02	10/12	10/16	10/22	10/27
Growing season length	(0°C)	days	132	117	123	126	132	140	145	146
	(-1°C)	days	136	121	125	130	134	142	147	148
	(-2°C)	days	145	126	133	137	146	153	155	160
Accumulated CHU to harvest	(0°C)		2468	2177	2233	2358	2479	2583	2641	2705
	(-1°C)		2501	2198	2239	2403	2544	2615	2671	2705
	(-2°C)		2576	2267	2371	2462	2586	2721	2753	2778

Station : GAGETOWN 2				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/15	5/27	5/23	5/16	5/14	5/12	5/12	5/11
Harvest date	(0°C)	mo/day	10/02	9/14	9/17	9/25	10/05	10/10	10/10	10/10
	(-1°C)	mo/day	10/06	9/20	9/27	10/05	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/17	9/27	10/01	10/11	10/15	10/23	11/03	11/06
Growing season length	(0°C)	days	138	118	125	134	140	146	150	150
	(-1°C)	days	143	128	134	138	145	149	150	150
	(-2°C)	days	154	136	140	147	153	163	169	172
Accumulated CHU to harvest	(0°C)		2644	2307	2387	2559	2679	2757	2801	2857
	(-1°C)		2696	2343	2500	2613	2703	2796	2868	2914
	(-2°C)		2771	2460	2573	2646	2800	2896	2939	2978

Appendix 2 (cont'd)

Station : GRAND FALLS DRUMMOND				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/21	5/30	5/27	5/22	5/20	5/18	5/17	5/15
Harvest date	(0°C)	mo/day	9/20	8/30	9/12	9/14	9/20	9/24	10/08	10/10
	(-1°C)	mo/day	9/26	9/07	9/13	9/19	9/26	10/06	10/10	10/10
	(-2°C)	mo/day	10/05	9/17	9/20	9/25	10/06	10/14	10/21	10/23
Growing season length	(0°C)	days	122	98	110	116	122	129	138	140
	(-1°C)	days	127	106	116	118	126	138	142	143
	(-2°C)	days	136	118	120	127	137	145	154	157
Accumulated CHU to harvest	(0°C)		2190	1866	1930	2072	2184	2315	2403	2504
	(-1°C)		2241	1867	1939	2153	2246	2363	2488	2558
	(-2°C)		2310	1979	2118	2188	2308	2398	2557	2686

Station : HARVEY STATION				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/19	5/31	5/25	5/20	5/18	5/17	5/15	5/14
Harvest date	(0°C)	mo/day	9/27	9/11	9/14	9/20	9/28	10/05	10/10	10/10
	(-1°C)	mo/day	10/03	9/17	9/20	9/27	10/06	10/10	10/10	10/10
	(-2°C)	mo/day	10/15	9/22	9/30	10/06	10/17	10/22	11/01	11/04
Growing season length	(0°C)	days	130	115	116	122	130	139	143	145
	(-1°C)	days	136	123	126	130	137	144	146	146
	(-2°C)	days	148	128	132	140	150	156	164	168
Accumulated CHU to harvest	(0°C)		2387	2099	2108	2266	2407	2523	2601	2701
	(-1°C)		2447	2133	2206	2327	2473	2571	2690	2710
	(-2°C)		2517	2221	2255	2371	2534	2641	2727	2825

Station : MINTO				Prov. : N.B.						
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/16	5/25	5/22	5/17	5/16	5/14	5/14	5/14
Harvest date	(0°C)	mo/day	9/29	9/14	9/14	9/21	9/30	10/09	10/10	10/10
	(-1°C)	mo/day	10/04	9/14	9/15	9/27	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/18	9/27	9/29	10/11	10/17	10/26	11/06	11/11
Growing season length	(0°C)	days	135	120	122	128	134	144	147	147
	(-1°C)	days	140	120	123	133	144	146	148	148
	(-2°C)	days	154	132	136	147	154	162	171	173
Accumulated CHU to harvest	(0°C)		2593	2233	2340	2460	2602	2737	2809	2840
	(-1°C)		2647	2284	2376	2510	2712	2781	2840	2879
	(-2°C)		2753	2417	2543	2613	2778	2878	2950	2972

Appendix 2 (cont'd)

Station : MONCTON			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/21	5/30	5/27	5/22	5/20	5/19	5/18	5/17
Harvest date	(0°C)	mo/day	9/23	9/05	9/12	9/14	9/21	10/01	10/08	10/10
	(-1°C)	mo/day	9/28	9/06	9/13	9/19	9/30	10/10	10/10	10/10
	(-2°C)	mo/day	10/09	9/18	9/24	9/30	10/11	10/15	10/25	10/28
Growing season length	(0°C)	days	124	104	110	118	122	133	140	141
	(-1°C)	days	130	108	115	122	130	140	143	144
	(-2°C)	days	140	120	122	132	141	148	159	160
Accumulated CHU to harvest	(0°C)		2335	1926	2129	2204	2315	2487	2609	2675
	(-1°C)		2401	1931	2133	2280	2397	2553	2658	2732
	(-2°C)		2504	2136	2271	2364	2523	2646	2710	2783

Station : NEPISIGUIT FALLS			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/25	6/03	6/01	5/26	5/24	5/23	5/22	5/22
Harvest date	(0°C)	mo/day	9/19	9/04	9/10	9/13	9/18	9/26	9/29	10/04
	(-1°C)	mo/day	9/27	9/12	9/14	9/20	9/27	10/07	10/10	10/10
	(-2°C)	mo/day	10/03	9/12	9/14	9/24	10/05	10/11	10/19	10/22
Growing season length	(0°C)	days	116	102	104	110	114	120	129	132
	(-1°C)	days	123	110	112	115	125	133	136	137
	(-2°C)	days	129	110	112	121	131	138	142	149
Accumulated CHU to harvest	(0°C)		2115	1807	1896	1989	2153	2217	2299	2323
	(-1°C)		2197	1807	1968	2112	2217	2320	2431	2454
	(-2°C)		2241	1840	1968	2123	2244	2372	2446	2494

Station : REXTON			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/24	6/04	5/30	5/24	5/22	5/22	5/21	5/21
Harvest date	(0°C)	mo/day	9/24	9/07	9/13	9/17	9/25	10/02	10/07	10/10
	(-1°C)	mo/day	9/29	9/11	9/14	9/20	10/01	10/10	10/10	10/10
	(-2°C)	mo/day	10/10	9/21	9/25	9/30	10/10	10/18	10/22	10/29
Growing season length	(0°C)	days	123	106	108	117	124	130	135	136
	(-1°C)	days	127	107	111	119	129	138	140	140
	(-2°C)	days	138	114	125	130	138	148	152	156
Accumulated CHU to harvest	(0°C)		2295	1948	2026	2193	2284	2435	2555	2604
	(-1°C)		2339	1968	2118	2208	2343	2448	2592	2604
	(-2°C)		2427	2100	2192	2275	2440	2582	2622	2702

Appendix 2 (cont'd)

Station : SACKVILLE			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/23	5/29	5/27	5/24	5/23	5/22	5/21	5/20
Harvest date	(0°C)	mo/day	10/03	9/17	9/19	9/25	10/07	10/10	10/10	10/10
	(-1°C)	mo/day	10/05	9/18	9/20	10/03	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/17	9/21	10/07	10/11	10/17	10/23	10/30	11/02
Growing season length	(0°C)	days	131	118	120	125	133	138	140	141
	(-1°C)	days	134	119	120	129	137	139	140	141
	(-2°C)	days	145	122	131	139	145	152	158	163
Accumulated CHU to harvest	(0°C)		2316	1999	2065	2204	2327	2424	2484	2551
	(-1°C)		2337	2025	2123	2224	2351	2468	2502	2569
	(-2°C)		2416	2140	2217	2313	2466	2524	2579	2637

Station : SAINT JOHN A			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/26	6/04	5/31	5/28	5/26	5/23	5/23	5/22
Harvest date	(0°C)	mo/day	10/03	9/17	9/21	9/28	10/08	10/10	10/10	10/10
	(-1°C)	mo/day	10/06	9/18	9/27	10/04	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/18	9/30	10/07	10/11	10/18	10/23	11/01	11/02
Growing season length	(0°C)	days	129	111	117	124	130	136	139	139
	(-1°C)	days	132	111	120	128	135	138	139	140
	(-2°C)	days	143	126	130	135	143	152	157	159
Accumulated CHU to harvest	(0°C)		2134	1857	1891	2064	2145	2245	2329	2388
	(-1°C)		2157	1857	1909	2091	2156	2249	2342	2388
	(-2°C)		2224	1952	2020	2114	2222	2364	2426	2433

Station : SUSSEX			Prov. : N.B.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/20	5/29	5/28	5/22	5/19	5/17	5/17	5/15
Harvest date	(0°C)	mo/day	9/14	8/29	8/31	9/08	9/14	9/19	9/27	9/30
	(-1°C)	mo/day	9/20	9/01	9/03	9/13	9/20	9/28	10/07	10/10
	(-2°C)	mo/day	9/29	9/13	9/14	9/20	9/26	10/08	10/13	10/24
Growing season length	(0°C)	days	115	104	104	108	115	121	129	134
	(-1°C)	days	122	105	105	115	122	130	134	140
	(-2°C)	days	130	116	117	123	129	137	146	155
Accumulated CHU to harvest	(0°C)		2186	1817	2046	2090	2189	2283	2429	2437
	(-1°C)		2282	1907	2053	2144	2297	2431	2515	2568
	(-2°C)		2383	2056	2116	2276	2417	2494	2606	2690

Appendix 2 (cont'd)

Station : WOODSTOCK			Prov. : N.B.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/15	5/27	5/26	5/17	5/13	5/11	5/10	5/07
Harvest date	(0°C)	mo/day	9/20	9/07	9/10	9/14	9/19	9/25	10/04	10/07
	(-1°C)	mo/day	9/25	9/13	9/14	9/17	9/23	10/04	10/10	10/10
	(-2°C)	mo/day	10/02	9/16	9/17	9/24	10/02	10/09	10/17	10/21
Growing season length	(0°C)	days	127	112	114	122	126	132	143	147
	(-1°C)	days	133	114	116	125	133	141	147	150
	(-2°C)	days	139	114	116	134	142	148	155	156
Accumulated CHU to harvest	(0°C)		2436	2065	2161	2282	2413	2580	2692	2832
	(-1°C)		2509	2141	2247	2340	2518	2669	2815	2877
	(-2°C)		2576	2235	2317	2384	2584	2730	2895	2934

Station : BADDECK			Prov. : N.S.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/27	6/02	5/30	5/29	5/26	5/26	5/25	5/24
Harvest date	(0°C)	mo/day	10/08	9/27	9/29	10/07	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/09	10/03	10/06	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	11/01	10/10	10/15	10/23	10/31	11/08	11/23	11/25
Growing season length	(0°C)	days	132	123	125	130	133	136	137	138
	(-1°C)	days	134	127	128	132	135	136	137	138
	(-2°C)	days	156	136	141	147	157	165	178	182
Accumulated CHU to harvest	(0°C)		2362	2056	2116	2271	2371	2497	2552	2573
	(-1°C)		2377	2089	2194	2284	2384	2497	2552	2573
	(-2°C)		2494	2185	2227	2413	2516	2600	2692	2762

Station : COLLEGEVILLE			Prov. : N.S.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/28	6/02	6/01	5/29	5/27	5/25	5/25	5/24
Harvest date	(0°C)	mo/day	9/17	8/24	9/02	9/14	9/18	9/22	9/27	10/03
	(-1°C)	mo/day	9/25	9/08	9/14	9/18	9/23	10/08	10/10	10/10
	(-2°C)	mo/day	10/07	9/16	9/21	9/25	10/08	10/16	10/28	10/31
Growing season length	(0°C)	days	111	89	99	109	112	116	120	128
	(-1°C)	days	120	104	109	113	117	129	135	136
	(-2°C)	days	131	111	116	121	133	139	155	158
Accumulated CHU to harvest	(0°C)		2086	1602	1782	2033	2095	2242	2322	2384
	(-1°C)		2205	1841	1939	2070	2239	2346	2435	2547
	(-2°C)		2320	1974	2060	2178	2313	2448	2578	2663

Appendix 2 (cont'd)

Station : DIGBY PRIM POINT			Prov. : N.S.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/23	5/30	5/27	5/24	5/23	5/21	5/19	5/19
Harvest date	(0°C)	mo/day	10/09	9/26	10/10	10/10	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	11/10	10/12	10/20	10/31	11/12	11/22	11/30	12/01
Growing season length	(0°C)	days	138	126	132	137	139	141	143	144
	(-1°C)	days	139	132	135	138	139	141	143	144
	(-2°C)	days	170	144	148	162	172	184	188	190
Accumulated CHU to harvest	(0°C)		2405	2133	2234	2276	2353	2537	2764	2770
	(-1°C)		2415	2229	2240	2276	2362	2537	2764	2770
	(-2°C)		2572	2372	2390	2432	2532	2693	2818	2983

Station : GREENWOOD A			Prov. : N.S.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/18	5/24	5/23	5/19	5/17	5/16	5/15	5/14
Harvest date	(0°C)	mo/day	9/28	9/12	9/13	9/19	9/26	10/10	10/10	10/10
	(-1°C)	mo/day	10/01	9/13	9/19	9/22	10/03	10/10	10/10	10/10
	(-2°C)	mo/day	10/13	9/26	9/27	10/09	10/12	10/18	11/03	11/07
Growing season length	(0°C)	days	133	116	118	123	131	145	147	148
	(-1°C)	days	135	118	122	126	136	145	147	148
	(-2°C)	days	147	128	130	139	147	154	170	173
Accumulated CHU to harvest	(0°C)		2493	2145	2195	2313	2503	2655	2862	2913
	(-1°C)		2520	2194	2229	2354	2536	2662	2862	2913
	(-2°C)		2638	2257	2313	2552	2656	2755	2920	3019

Station : KENTVILLE CDA			Prov. : N.S.							
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/18	5/25	5/23	5/20	5/17	5/16	5/15	5/14
Harvest date	(0°C)	mo/day	10/03	9/15	9/19	9/25	10/09	10/10	10/10	10/10
	(-1°C)	mo/day	10/07	9/24	9/27	10/06	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/21	10/03	10/10	10/14	10/20	10/28	11/05	11/14
Growing season length	(0°C)	days	137	122	123	130	139	145	146	147
	(-1°C)	days	141	129	131	138	142	146	146	147
	(-2°C)	days	155	136	141	146	155	163	172	178
Accumulated CHU to harvest	(0°C)		2606	2284	2370	2457	2622	2779	2832	2846
	(-1°C)		2656	2311	2460	2566	2656	2796	2833	2846
	(-2°C)		2753	2413	2606	2662	2732	2866	2977	3028

Appendix 2 (cont'd)

Station : METEGHAN RIVER				Prov. : N.S.						
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/27	6/02	6/02	5/29	5/27	5/24	5/24	5/23
Harvest date	(0°C)	mo/day	10/08	9/29	9/29	10/07	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/09	10/02	10/04	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	11/02	10/07	10/14	10/22	11/02	11/12	11/23	11/24
Growing season length	(0°C)	days	133	126	127	129	133	135	138	139
	(-1°C)	days	134	127	128	131	134	137	138	139
	(-2°C)	days	158	131	134	146	159	171	179	181
Accumulated CHU to harvest	(0°C)		2155	1850	1912	2069	2121	2298	2362	2422
	(-1°C)		2162	1887	1938	2070	2142	2298	2362	2422
	(-2°C)		2292	2035	2086	2145	2315	2413	2495	2542

Station : MOUNT UNIACKE				Prov. : N.S.						
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/26	6/02	5/31	5/27	5/25	5/23	5/23	5/23
Harvest date	(0°C)	mo/day	9/20	9/03	9/08	9/14	9/18	9/26	10/08	10/10
	(-1°C)	mo/day	9/27	9/12	9/13	9/20	9/26	10/06	10/10	10/10
	(-2°C)	mo/day	10/09	9/16	9/20	9/28	10/10	10/18	10/31	11/04
Growing season length	(0°C)	days	116	100	103	110	114	121	137	138
	(-1°C)	days	123	110	110	115	122	132	137	138
	(-2°C)	days	136	115	116	123	137	145	158	162
Accumulated CHU to harvest	(0°C)		2105	1819	1877	1975	2104	2268	2334	2390
	(-1°C)		2188	1912	1953	2043	2160	2322	2404	2469
	(-2°C)		2295	1985	2104	2170	2302	2418	2532	2590

Station : NAPPAN CDA				Prov. : N.S.						
Variable	Harvest date criteria	units	Probability level (%)							
			mean	5	10	25	50	75	90	95
Seeding date		mo/day	5/24	5/31	5/31	5/25	5/23	5/22	5/21	5/20
Harvest date	(0°C)	mo/day	9/18	8/28	9/01	9/11	9/18	9/25	10/06	10/10
	(-1°C)	mo/day	9/27	9/09	9/13	9/17	9/26	10/09	10/10	10/10
	(-2°C)	mo/day	10/06	9/16	9/19	9/25	10/08	10/14	10/26	10/31
Growing season length	(0°C)	days	116	98	99	110	118	123	133	138
	(-1°C)	days	125	104	110	119	124	135	140	141
	(-2°C)	days	134	115	120	124	133	143	157	158
Accumulated CHU to harvest	(0°C)		2157	1836	1894	2001	2148	2348	2392	2411
	(-1°C)		2268	1935	2050	2085	2306	2400	2514	2529
	(-2°C)		2359	2060	2075	2216	2357	2514	2604	2658

Appendix 2 (cont'd)

Station : NORTHEAST MARGAREE			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/29	6/05	6/03	5/31	5/28	5/27	5/26	5/24
Harvest date	(0°C)	mo/day	9/06	7/29	8/06	8/29	9/11	9/16	9/18	9/24
	(-1°C)	mo/day	9/11	8/13	8/23	9/03	9/16	9/18	9/24	9/26
	(-2°C)	mo/day	9/27	9/07	9/13	9/18	9/27	10/05	10/14	10/22
Growing season length	(0°C)	days	99	59	72	94	103	109	112	116
	(-1°C)	days	104	76	87	97	109	112	116	120
	(-2°C)	days	120	97	105	112	123	129	139	145
Accumulated CHU to harvest	(0°C)		1780	963	1276	1614	1847	1946	2110	2178
	(-1°C)		1870	1353	1559	1678	1914	2052	2143	2250
	(-2°C)		2067	1635	1731	1948	2064	2205	2304	2497

Station : PARRSBORO			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/26	6/01	5/29	5/27	5/25	5/23	5/23	5/23
Harvest date	(0°C)	mo/day	9/19	8/22	9/03	9/13	9/20	9/27	10/08	10/09
	(-1°C)	mo/day	9/29	9/05	9/13	9/18	10/03	10/10	10/10	10/10
	(-2°C)	mo/day	10/08	9/13	9/19	9/28	10/11	10/17	10/23	10/26
Growing season length	(0°C)	days	115	90	99	109	116	124	133	137
	(-1°C)	days	125	101	109	114	127	136	139	139
	(-2°C)	days	134	107	117	124	137	145	150	152
Accumulated CHU to harvest	(0°C)		2032	1484	1700	1862	2030	2237	2367	2443
	(-1°C)		2146	1692	1828	1982	2167	2326	2422	2450
	(-2°C)		2233	1819	1886	2117	2286	2371	2430	2540

Station : ST MARGARET'S BAY			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/28	6/04	6/01	5/29	5/28	5/25	5/25	5/25
Harvest date	(0°C)	mo/day	9/26	9/07	9/12	9/21	9/25	10/06	10/10	10/10
	(-1°C)	mo/day	10/03	9/18	9/22	9/28	10/06	10/10	10/10	10/10
	(-2°C)	mo/day	10/13	9/28	9/28	10/07	10/13	10/20	10/29	10/30
Growing season length	(0°C)	days	120	100	106	113	118	130	135	136
	(-1°C)	days	127	111	112	122	130	134	137	137
	(-2°C)	days	137	117	125	129	137	146	151	156
Accumulated CHU to harvest	(0°C)		2115	1709	1898	1963	2131	2250	2337	2407
	(-1°C)		2201	1932	1997	2076	2222	2319	2368	2459
	(-2°C)		2280	1966	2039	2133	2294	2410	2514	2527

Appendix 2 (cont'd)

Station : SYDNEY A			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	6/04	6/12	6/08	6/05	6/03	6/02	6/01	5/31
Harvest date	(0°C)	mo/day	10/08	9/29	10/03	10/07	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/09	10/02	10/07	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/29	10/09	10/14	10/20	10/28	11/07	11/10	11/17
Growing season length	(0°C)	days	126	116	117	123	127	129	130	131
	(-1°C)	days	127	117	122	125	128	129	130	131
	(-2°C)	days	146	128	129	138	145	156	161	166
Accumulated CHU to harvest	(0°C)		2154	1849	1975	2051	2152	2242	2387	2461
	(-1°C)		2162	1864	1975	2056	2172	2242	2387	2461
	(-2°C)		2255	1938	2024	2158	2259	2342	2535	2655

Station : TRURO			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/26	6/01	5/31	5/28	5/26	5/24	5/22	5/20
Harvest date	(0°C)	mo/day	9/20	8/29	9/08	9/14	9/21	9/26	10/06	10/09
	(-1°C)	mo/day	9/27	9/07	9/13	9/19	9/26	10/10	10/10	10/10
	(-2°C)	mo/day	10/07	9/11	9/19	9/24	10/10	10/17	10/24	10/31
Growing season length	(0°C)	days	116	95	100	111	116	121	132	133
	(-1°C)	days	124	101	109	115	121	135	138	142
	(-2°C)	days	133	109	117	120	135	143	152	159
Accumulated CHU to harvest	(0°C)		2133	1741	1813	1961	2183	2271	2349	2412
	(-1°C)		2207	1788	1966	2083	2217	2343	2446	2551
	(-2°C)		2296	1865	2061	2135	2298	2451	2561	2623

Station : UPPER STEWYACKE			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/24	5/29	5/28	5/26	5/24	5/23	5/22	5/20
Harvest date	(0°C)	mo/day	9/08	7/27	8/13	9/01	9/13	9/18	9/25	9/28
	(-1°C)	mo/day	9/18	8/15	9/01	9/14	9/18	9/25	10/06	10/09
	(-2°C)	mo/day	10/01	9/14	9/15	9/20	9/29	10/11	10/20	10/27
Growing season length	(0°C)	days	106	62	81	99	111	115	123	125
	(-1°C)	days	115	81	96	111	116	123	135	136
	(-2°C)	days	129	112	114	119	128	137	147	156
Accumulated CHU to harvest	(0°C)		2003	1049	1473	1854	2092	2203	2357	2395
	(-1°C)		2160	1489	1851	2069	2184	2378	2404	2454
	(-2°C)		2325	2006	2090	2155	2292	2496	2605	2635

Appendix 2 (cont'd)

Station : YARMOUTH A			Prov. : N.S.							
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/27	5/30	5/30	5/29	5/27	5/24	5/24	5/24
Harvest date	(0°C)	mo/day	10/09	10/02	10/07	10/10	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/10	10/03	10/09	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	11/04	10/03	10/12	10/24	11/03	11/16	11/25	11/26
Growing season length	(0°C)	days	134	128	131	132	135	136	138	138
	(-1°C)	days	135	129	132	132	135	137	138	138
	(-2°C)	days	160	131	139	150	161	169	179	184
Accumulated CHU to harvest	(0°C)		2195	1905	1978	2096	2239	2298	2340	2345
	(-1°C)		2197	1905	1978	2096	2242	2303	2340	2345
	(-2°C)		2329	1975	2087	2197	2377	2472	2500	2525

Station : ALLISTON CDA EPF			Prov. : P.E.I.							
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/25	6/01	5/30	5/26	5/25	5/24	5/23	5/21
Harvest date	(0°C)	mo/day	10/07	9/24	9/26	10/05	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/10	10/05	10/09	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/29	10/12	10/15	10/22	10/28	11/07	11/12	11/18
Growing season length	(0°C)	days	134	119	121	131	136	138	139	140
	(-1°C)	days	136	130	132	136	137	138	139	140
	(-2°C)	days	156	138	140	148	155	165	170	176
Accumulated CHU to harvest	(0°C)		2400	2080	2159	2285	2413	2516	2625	2664
	(-1°C)		2423	2181	2189	2304	2415	2532	2625	2664
	(-2°C)		2525	2259	2272	2412	2534	2619	2769	2829

Station : CHARLOTTETOWN CDA			Prov. : P.E.I.							
Variable	Harvest date criteria	units	mean	5	Probability level (%)					
					10	25	50	75	90	95
Seeding date		mo/day	5/25	6/04	5/29	5/26	5/24	5/23	5/22	5/21
Harvest date	(0°C)	mo/day	10/08	9/29	10/01	10/09	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/10	10/05	10/10	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	10/27	10/08	10/10	10/20	10/29	11/06	11/11	11/15
Growing season length	(0°C)	days	135	123	126	133	137	139	140	141
	(-1°C)	days	137	127	131	135	137	139	140	141
	(-2°C)	days	154	137	138	145	155	160	168	171
Accumulated CHU to harvest	(0°C)		2507	2237	2304	2371	2530	2579	2692	2780
	(-1°C)		2518	2268	2304	2419	2530	2627	2692	2780
	(-2°C)		2603	2320	2359	2460	2594	2711	2859	2916

Appendix 2 (cont'd)

Station : SUMMERSIDE A			Prov. : P.E.I.							
Variable	Harvest date criteria	units	mean	Probability level (%)						
				5	10	25	50	75	90	95
Seeding date		mo/day	5/25	5/30	5/29	5/26	5/24	5/23	5/22	5/22
Harvest date	(0°C)	mo/day	10/09	10/02	10/09	10/10	10/10	10/10	10/10	10/10
	(-1°C)	mo/day	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10
	(-2°C)	mo/day	11/02	10/16	10/20	10/24	11/01	11/12	11/17	11/20
Growing season length	(0°C)	days	137	130	131	135	138	139	140	140
	(-1°C)	days	137	132	133	136	138	139	140	140
	(-2°C)	days	161	141	149	153	160	168	176	180
Accumulated	(0°C)		2510	2278	2288	2440	2512	2602	2652	2738
CHU to	(-1°C)		2513	2287	2305	2440	2512	2602	2652	2738
harvest	(-2°C)		2614	2382	2399	2509	2640	2700	2773	2870

Appendix 3. Probability of accumulated Corn Heat Units exceeding selected threshold levels for three harvest date criteria at 37 stations in the Maritimes.

Station	Harvest date criteria (°C)	CHU threshold				
		1900	2100	2300	2500	2700
<u>New Brunswick</u>		Probability (%)				
ACADIA FOREST EXP ST	0	88	38	8	0	0
	-1	94	57	17	0	0
	-2	100	84	41	0	0
ALMA	0	89	68	9	0	0
	-1	93	75	9	0	0
	-2	94	78	38	0	0
AROOSTOOK	0	96	84	42	0	0
	-1	100	89	64	16	0
	-2	100	95	79	31	0
BATHURST	0	100	77	53	17	0
	-1	100	89	67	23	0
	-2	100	96	74	41	5
CHATHAM A	0	100	88	58	15	0
	-1	100	100	71	23	0
	-2	100	100	80	43	10
DOAKTOWN	0	79	41	13	0	0
	-1	92	58	23	3	0
	-2	100	86	61	17	0
EDMUNDSTON FRASER CO	0	95	70	32	7	0
	-1	100	82	35	11	0
	-2	100	89	53	20	0
FREDERICTON CDA	0	100	100	80	47	5
	-1	100	100	86	57	5
	-2	100	100	94	72	30
GAGETOWN 2	0	100	100	96	81	40
	-1	100	100	97	90	52
	-2	100	100	100	94	63
GRAND FALLS DRUMMOND	0	94	70	29	5	0
	-1	94	80	34	9	0
	-2	100	91	52	13	5
HARVEY STATION	0	100	94	68	33	6
	-1	100	97	77	43	7
	-2	100	100	85	57	16
MINTO	0	100	100	92	72	38
	-1	100	100	95	76	54
	-2	100	100	100	92	63

Appendix 3 (cont'd)

Station	Harvest date criteria (°C)	CHU threshold				
		1900	2100	2300	2500	2700
<u>New Brunswick</u>		Probability (%)				
MONCTON	0	96	91	53	21	0
	-1	100	91	69	38	7
	-2	100	96	86	52	11
NEPISIGUIT FALLS	0	90	64	10	0	0
	-1	93	76	29	0	0
	-2	94	81	42	5	0
REXTON	0	96	82	47	17	0
	-1	96	91	60	20	0
	-2	100	95	70	45	5
SACKVILLE	0	100	89	62	6	0
	-1	100	91	65	10	0
	-2	100	100	76	28	3
SAINT JOHN A	0	89	61	14	0	0
	-1	91	71	17	0	0
	-2	100	77	36	0	0
SUSSEX	0	94	70	23	0	0
	-1	96	83	49	11	0
	-2	100	92	72	24	5
WOODSTOCK	0	100	92	73	42	10
	-1	100	100	84	55	20
	-2	100	100	92	63	29
<u>Nova Scotia</u>		Probability (%)				
BADDECK	0	100	94	70	22	0
	-1	100	94	74	22	0
	-2	100	100	85	51	9
COLLEGEVILLE	0	80	48	11	0	0
	-1	93	66	32	6	0
	-2	100	85	53	18	4
DIGBY PRIM POINT	0	100	96	68	29	13
	-1	100	100	68	29	13
	-2	100	100	100	56	24
GREENWOOD A	0	100	100	76	50	17
	-1	100	100	83	54	17
	-2	100	100	91	79	32
KENTVILLE CDA	0	100	100	94	70	32
	-1	100	100	95	85	41
	-2	100	100	96	94	60

Appendix 3 (cont'd)

Station	Harvest date criteria (°C)	CHU threshold				
		1900	2100	2300	2500	2700
<u>Nova Scotia</u>		Probability (%)				
METEGHAN RIVER	0	91	63	24	0	0
	-1	94	63	24	0	0
	-2	100	86	57	9	0
MOUNT UNLACKE	0	89	52	13	0	0
	-1	100	68	31	4	0
	-2	100	90	50	12	0
NAPPAN CDA	0	87	54	36	0	0
	-1	97	74	51	14	0
	-2	100	88	65	28	0
NORTHEAST MARGAREE	0	35	14	0	0	0
	-1	51	18	0	0	0
	-2	83	44	11	5	0
PARRSBORO	0	72	38	17	0	0
	-1	83	58	33	0	0
	-2	89	76	47	7	0
ST MARGARET'S BAY	0	84	57	18	0	0
	-1	97	70	31	0	0
	-2	100	79	49	13	0
SYDNEY A	0	92	60	13	0	0
	-1	93	67	13	0	0
	-2	100	80	32	11	0
TRURO	0	88	59	19	0	0
	-1	92	73	33	6	0
	-2	95	79	50	16	0
UPPER STEWIAKKE	0	72	45	17	0	0
	-1	86	67	35	4	0
	-2	100	89	48	25	0
YARMOUTH A	0	96	74	24	0	0
	-1	96	74	27	0	0
	-2	97	89	63	10	0
<u>Prince Edward Island</u>		Probability (%)				
ALLISTON CDA EPF	0	100	94	72	27	0
	-1	100	100	76	31	0
	-2	100	100	86	61	15
CHARLOTTETOWN CDA	0	100	100	90	60	9
	-1	100	100	94	60	9
	-2	100	100	100	73	28
SUMMERSIDE A	0	100	100	87	53	8
	-1	100	100	90	53	8
	-2	100	100	100	77	25

Appendix 4a. Regression relationships between average CHU and CHU at selected risk levels. Equations are of the form $Y = a_0 + a_1 X$, where X is the average CHU accumulated to 0°C (X_1) or to -2°C (X_2) and Y is the CHU for probability level and harvest criterion as defined below.

Y parameter		Regression equation	R^2	S.E.E. (CHU)
Risk level	Harvest criterion			
5%	0°C	$Y = -1328.0 + 1.42306 X_1$	0.82	129.8
10%	0°C	$Y = -625.9 + 1.16004 X_1$	0.92	69.7
25%	0°C	$Y = -149.9 + 1.01208 X_1$	0.98	31.5
5%	-1°C	$Y = -597.6 + 1.13716 X_1$	0.89	78.5
10%	-1°C	$Y = -78.9 + 0.95472 X_1$	0.95	42.8
25%	-1°C	$Y = 103.7 + 0.92796 X_1$	0.96	37.6
5%	-2°C	$Y = -576.0 + 1.10518 X_2$	0.94	48.1
10%	-2°C	$Y = -440.7 + 1.08429 X_2$	0.96	39.6
25%	-2°C	$Y = -112.1 + 0.99553 X_2$	0.97	28.1

R^2 is the coefficient of determination.

S.E.E. is the standard error of estimate of the regression.

Appendix 4b. Regression relationships between average CHU and the probability that selected CHU threshold values are exceeded. Equations are of the form $Y = a_0 + a_1 X + a_2 X^2$ where X is the average CHU accumulated to 0°C (X_1) or to -2°C (X_2) and Y is the probability that CHU threshold values are exceeded for selected harvest criteria as defined below.

Y parameter		Regression equation	R^2	S.E.E. (%)
CHU threshold	Harvest criterion			
2100 CHU	0°C	$Y = -644.1 + 0.52559 X_1 - 0.00009139 X_1^2$	0.94	5.8
2300 CHU	-2°C	$Y = -1286.1 + 0.98030 X_2 - 0.00017296 X_2^2$	0.95	5.2



LIBRARY/BIBLIOTHEQUE



AGRICULTURE CANADA OTTAWA K1A 0C5

3 9073 00082750 3

