



# 2011 Forage Guide to Cultivar Selection for Nova Scotia



## 2010 Maritime Forage Cultivar Performance List

| <b>ALFALFA</b>      | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>AC Caribou | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|---------------------|-----------------------------------|-------------------------|-----------------------------------|-----------------------|----------------------------|
| <b>Apica</b>        | 8.58                              | 114                     | 103                               | -1                    | 2                          |
| <b>AC Caribou</b>   | 8.35                              | 110                     | 100                               | +6                    | 2                          |
| <b>AC Brador</b>    | 8.55                              | 31                      | 102                               | +1                    | 2, 11                      |
| <b>Magnum IV</b>    | 8.22                              | 29                      | 98                                | +12                   | 1                          |
| <b>134</b>          | 8.26                              | 29                      | 99                                | +5                    | 1                          |
| <b>54V46</b>        | 8.45                              | 17                      | 102                               | +7                    | 8                          |
| <b>Magnum 3801</b>  | 8.71                              | 9                       | 104                               | +24                   | 1                          |
| <b>Valiant</b>      | 8.25                              | 9                       | 99                                | +16                   | 1                          |
| <b>Ascend</b>       | 7.95                              | 9                       | 95                                | +8                    | 2                          |
| <b>Magnum III</b>   | 8.82                              | 9                       | 106                               | +8                    | 2                          |
| <b>STELLAR FG</b>   | 8.58                              | 9                       | 103                               | +8                    | 9                          |
| <b>Guardsman II</b> | 8.31                              | 9                       | 100                               | +13                   | 9                          |
| <b>53Q30</b>        | 7.94                              | 9                       | 95                                | +2                    | 8                          |
| <b>55V48</b>        | 8.10                              | 9                       | 97                                | +2                    | 8                          |
| <b>Algonquin</b>    | 8.60                              | 9                       | 103                               | +6                    | 2, 3                       |

| <b>RED CLOVER</b>  | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>AC Endure | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|--------------------|-----------------------------------|-------------------------|----------------------------------|-----------------------|----------------------------|
| <b>AC Endure</b>   | 8.67                              | 27                      | 100                              | +18                   | 2, 6                       |
| <b>AC Charlie</b>  | 8.28                              | 24                      | 96                               | +7                    | 6                          |
| <b>AC Christie</b> | 8.46                              | 19                      | 98                               | +22                   | 2, 6                       |

| <b>BIRDSFOOT<br/>TREFOIL</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Leo | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|------------------------------|-----------------------------------|-------------------------|----------------------------|-----------------------|----------------------------|
| <b>Leo</b>                   | 8.01                              | 18                      | 100                        | *                     | Public                     |
| <b>Upstart</b>               | 8.16                              | 8                       | 102                        | *                     | 5                          |
| <b>Bull</b>                  | 8.50                              | 8                       | 106                        | *                     | 7                          |
| <b>Empire</b>                | 8.07                              | 8                       | 101                        | *                     | Public                     |
| <b>AC Langille</b>           | 8.57                              | 4                       | 107                        | *                     | 2                          |

| <b>WHITE<br/>CLOVER</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Milkanova | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|-------------------------|-----------------------------------|-------------------------|----------------------------------|-----------------------|----------------------------|
| <b>Milkanova</b>        | 4.78                              | 16                      | 100                              | -13                   | 2,5                        |

| <b>TIMOTHY</b>       | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Climax | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|----------------------|-----------------------------------|-------------------------|-------------------------------|-----------------------|----------------------------|
| <b>Richmond – E</b>  | 9.15                              | 47                      | 107                           | +3                    | 2,5,7                      |
| <b>Champ – EM</b>    | 8.74                              | 56                      | 102                           | -1                    | Public                     |
| <b>AC Apex – M</b>   | 8.47                              | 23                      | 99                            | +2                    | 2,6                        |
| <b>Alexander – M</b> | 9.12                              | 10                      | 107                           | -9                    | 1                          |
| <b>Aurora – M</b>    | 8.94                              | 10                      | 105                           | -5                    | 1, 2                       |
| <b>Climax – M</b>    | 8.53                              | 57                      | 100                           | -2                    | Public                     |
| <b>EXPRESS – M</b>   | 9.23                              | 10                      | 108                           | -3                    | 2,9                        |
| <b>Hokuo – M</b>     | 8.84                              | 10                      | 104                           | -1                    | 2                          |
| <b>Novio – M</b>     | 9.00                              | 21                      | 105                           | +1                    | 2, 6                       |
| <b>Ovation – M</b>   | 9.18                              | 10                      | 108                           | +7                    | 2, 11                      |
| <b>Itasca – ML</b>   | 9.06                              | 10                      | 106                           | -7                    | 2                          |
| <b>KARA – ML</b>     | 8.84                              | 10                      | 104                           | -8                    | 2, 11                      |
| <b>Winnetou – ML</b> | 8.74                              | 10                      | 102                           | -5                    | 2, 6                       |
| <b>Drummond – L</b>  | 8.49                              | 10                      | 99                            | -3                    | 2, 5                       |

E = Early EM=Early medium M = Medium ML = Medium Late L = Late

| <b>BROMEGRASS</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Radisson | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|-------------------|-----------------------------------|-------------------------|---------------------------------|-----------------------|----------------------------|
| <b>Paddock</b>    | 8.14                              | 30                      | 102                             | +17                   | 2, 7                       |
| <b>Radisson</b>   | 7.99                              | 27                      | 100                             | -1                    | 2                          |
| <b>Hikari</b>     | 7.22                              | 8                       | 90                              | -20                   | 1                          |
| <b>Big Foot</b>   | 7.86                              | 8                       | 98                              | +3                    | 1                          |
| <b>PEAK</b>       | 8.51                              | 8                       | 107                             | -7                    | 9                          |
| <b>AC Rocket</b>  | 8.22                              | 8                       | 103                             | -13                   | 2, 11                      |

| <b>ORCHARDGRASS</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Kay | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|---------------------|-----------------------------------|-------------------------|----------------------------|-----------------------|----------------------------|
| <b>Kay</b>          | 8.29                              | 26                      | 101                        | +4                    | 2, 5                       |
| <b>Arctic</b>       | 8.21                              | 26                      | 100                        | - 9                   | 2, 9                       |
| <b>Baridana</b>     | 8.15                              | 10                      | 99                         | +5                    | 1                          |
| <b>Persist</b>      | 8.33                              | 10                      | 101                        | +10                   | 2, 6                       |
| <b>Crown Royale</b> | 8.59                              | 10                      | 105                        | -2                    | 2, 6                       |

| <b>REED<br/>CANARYGRASS</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Venture | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|-----------------------------|-----------------------------------|-------------------------|--------------------------------|-----------------------|----------------------------|
| <b>Chieftain</b>            | 9.10                              | 8                       | 100                            | +5                    | 1                          |
| <b>Marathon</b>             | 9.55                              | 8                       | 105                            | +10                   | 9                          |
| <b>Venture</b>              | 9.10                              | 8                       | 100                            | -1                    | 1, 2                       |

| <b>TALL FESCUE</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Courtenay | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|--------------------|-----------------------------------|-------------------------|----------------------------------|-----------------------|----------------------------|
| <b>Courtenay</b>   | 9.80                              | 29                      | 100                              | -7                    | 2, 9                       |
| <b>Kokanee</b>     | 9.80                              | 8                       | 100                              | -3                    | 2, 6                       |
| <b>Kora</b>        | 9.73                              | 8                       | 99                               | +5                    | 2, 6                       |

| <b>MEADOW FESCUE</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Pardel | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|----------------------|-----------------------------------|-------------------------|-------------------------------|-----------------------|----------------------------|
| <b>Pardel</b>        | 8.66                              | 8                       | 100                           | +3                    | 1                          |
| <b>Kolumbus</b>      | 8.49                              | 8                       | 98                            | +5                    | 2, 6                       |

| <b>GRAZING KENTUCKY BLUEGRASS</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Lato | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|-----------------------------------|-----------------------------------|-------------------------|-----------------------------|-----------------------|----------------------------|
|-----------------------------------|-----------------------------------|-------------------------|-----------------------------|-----------------------|----------------------------|

| <b>PERENNIAL RYEGRASS</b> | Mean Annual Yield<br>2 Yrs (t/ha) | # of site yrs<br>tested | % yield relative to<br>Bastion | 3 Yr %<br>persistence | Seed Supplier<br>Listing # |
|---------------------------|-----------------------------------|-------------------------|--------------------------------|-----------------------|----------------------------|
| <b>Bastion</b>            | 6.18                              | 23                      | 100                            | +6                    | 1,2,5                      |

| <b>ANNUAL RYEGRASS</b> | Type                   | % yield relative to<br>Lemtal | Seed Supplier Listing # |
|------------------------|------------------------|-------------------------------|-------------------------|
| <b>Ajax</b>            | Tetraploid Italian     | 108                           | 5, 7                    |
| <b>Aubade</b>          | Tetraploid Westerwolds | 114                           | 1,2,10                  |
| <b>Barextra</b>        | Tetraploid Italian     | 104                           | 1                       |
| <b>Barmultra</b>       | Tetraploid Italian     | 102                           | 1                       |
| <b>Barspectra</b>      | Tetraploid Westerwolds | 104                           | 1                       |
| <b>Bartolini</b>       | Diploid Italian        | 99                            | 1                       |
| <b>Fabio</b>           | Diploid Italian        | 114                           | 2, 6                    |
| <b>Lemtal</b>          | Diploid Italian        | 100                           | 1, 2                    |
| <b>Max</b>             | Tetraploid Italian     | 110                           | 7                       |
| <b>Sabroso</b>         | Tetraploid Westerwolds | 115                           | 1                       |
| <b>SW Botrus</b>       | Tetraploid Westerwolds | 110                           | 4, 9                    |

#### ATLANTIC SEED SUPPLIERS

| Listing # | Company              | Contact            | Phone #        | Fax #        |
|-----------|----------------------|--------------------|----------------|--------------|
| 1         | Bishop/Speare Seeds  | Bob Dippel         | 519-338-3840   | 519-338-2510 |
| 2         | Co-op Atlantic       | Rafael Gonzalez    | 506-858-6356   | 506-858-6470 |
| 3         | Halifax Seed Co.     | Tim Tregunno       | 902-455-4364   | 902-455-5271 |
| 4         | McCardle Bros.       | Leonard McCardle   | 902-887-2338   | 902-887-3132 |
| 5         | MAPLESEED            | Gerrit Van Keulan  | 519-281-0032   | 519-357-1370 |
| 6         | Parsons Seeds Ltd.   | Robert Thom        | 905-729-2202   | 905-729-2623 |
| 7         | PICKSEED Canada Inc. | Paul Wight         | 1-800-661-4769 | 705-878-9249 |
| 8         | Pioneer Hi-Bred Ltd. | Jim Lamb           | 902-538-3623   | 902-538-8284 |
| 9         | Quality Seeds Ltd.   | Doug Baker         | 1-877-856-7333 | 905-856-7509 |
| 10        | Seed Link            | Peter Bonis        | 705-324-0544   | 705-324-2550 |
| 11        | Semican              | Jacques Beauchesne | 819-362-8823   | 819-362-3385 |

Forage testing contributions were made by Crops & Livestock Research Center, Agric. & Agri. Food Canada (Charlottetown), N.S.A.C., AgraPoint, SCIANS (NS Soil & Crop), N.B.D.A.A. & NB Soil & Crop. The 2010 Forage Guide for Nova Scotia has been prepared by AgraPoint & can be found on the web at: [www.agrapoint.ca](http://www.agrapoint.ca)

#### FORAGE MIXTURES TO CONSIDER FOR YOUR FARM

##### Recommended Perennial Pasture Mixtures

These mixtures are designed with careful consideration to the specific attributes of each species. Close attention must be paid to fertility levels, stocking rates, rotational grazing practices and fall cutting management, if the following mixtures are to remain productive.

##### A. Moderately Well Drained to Variable Soils

| Mixture   | Rate     | Comments   |
|---|----------|--|
| 10% White Clover<br>30% Orchardgrass<br>60% Meadow Fescue | 22 kg/ha | Good dual purpose mixture for early cut silage and rotational grazing. Meadow fescue helps give a better bottom to the pasture, producing a tighter sod more resistant to poaching (punching). |

|   |          |  |
|---|----------|--|
| 10% White Clover<br>40% Kentucky Bluegrass<br>50% Meadow Fescue | 20 kg/ha | Palatable mixture, but must be managed well, if under utilized will become stemmy. Kentucky bluegrass has good winter hardiness and persists well under grazing. |
|---|----------|--|

|  |          |   |
|--|----------|---|
| 10% White Clover<br>30% Timothy<br>60% Meadow Fescue | 20 kg/ha | Timothy, though less productive than orchardgrass, is more winter hardy, especially on imperfectly drained soils. Some timothy cultivars are more productive under grazing than others (e.g. Comtal timothy). |
|--|----------|---|

## Recommended Haylage Mixtures

### A. Loamy Soils with good surface and internal drainage

| Mixture   | Rate     | Comments  |
|---|----------|---|
| 80% Alfalfa<br>20% Timothy                          | 15 kg/ha | This high yielding, high quality mixture is suited to well drained soils with a minimum pH of 6. Having a grass in the mix improves dry down and reduces frost heaving. |
| 60% Alfalfa<br>40% Orchardgrass or Reed Canarygrass | 17 kg/ha | Orchardgrass and reed canarygrass are less compatible with alfalfa than timothy, but have superior regrowth. Harvest early to maximize quality.                         |
| 55% Alfalfa<br>45% Bromegrass                       | 20 kg/ha | This mixture should be used on well drained fields and with an early alfalfa. Bromegrass works well with alfalfa, but can be difficult to establish.                    |

### B. Variable to Imperfectly Drained Soils – Heavy Soil Mixtures

| Mixture  | Rate     | Comments  |
|--|----------|---|
| 40% Alfalfa<br>30% Timothy<br>30% Reed Canarygrass                       | 18 kg/ha | Use on fields containing soils with variable drainage, e.g. formed dykeland. This mixture does well in an aggressive 2-3 cut system, starting with an early June harvest. |
| 60% Red Clover<br>40% Timothy  | 12 kg/ha | Best suited for short rotations. Contains a high percentage of red clover in the first two production years as the red clover thins out, both yield and quality decline.  |
| 30% Red Clover,<br>10% Ladino Clover,<br>40% Timothy & 20% Meadow Fescue | 20 kg/ha | The addition of ladino clover and meadow fescue improves the reliability and the longevity of this mixture, but can become too competitive on timothy.                    |

## Recommended Hay Mixtures

### A. Moderate to Well Drained Soils

| Mixture                       | Rate     | Comments  |
|-------------------------------|----------|---|
| 65% Alfalfa<br>35% Timothy    | 15 kg/ha | Although alfalfa is not as difficult to wilt as red clover, a hay drier will allow baling at a higher moisture improving leaf retention.      |
| 50% Alfalfa<br>50% Bromegrass | 20 kg/ha | Select an early alfalfa. Bromegrass is very compatible with alfalfa and can be superior to timothy in quality and regrowth.                   |
| 70% Bromegrass<br>30% Timothy | 18 kg/ha | This mixture is well adapted to deeper droughty soils. Due to early maturity, plan to take first cut as haylage. Use early timothy cultivars. |

### B. Poor to Imperfectly Drained Soils

| Mixture                              | Rate     | Comments  |
|--------------------------------------|----------|---|
| 85% Timothy<br>15% Red Clover        | 13 kg/ha | Red clover is difficult to field cure. A hay drier will reduce heating in storage. Red clover is a short lived perennial which usually doesn't produce longer than three years. For these reasons avoid excessive red clover in mixtures. |
| Timothy                              | 10 kg/ha | Consider just timothy for farms without hay driers and/or in coastal areas that have difficult drying conditions. Select cultivars with varying maturities to spread out harvest.   |
| 65% Reed Canarygrass<br>35% Timothy  | 14 kg/ha | Low alkaloid varieties of canarygrass can be used on poorly drained fields which are subjected to periodic flooding. Quality and palatability drop rapidly following heading.   |
| 65% Birdsfoot Trefoil<br>35% Timothy | 12 kg/ha | Trefoil is difficult to get established properly. Trefoil can handle lower fertility situations, but needs 50% bloom before harvest. Trefoil will not persist under frequent cutting.   |