

# 2010 NRPN Intraregional Production Zone

| Entry | Selection No. | Pedigree                                                       | Source           |
|-------|---------------|----------------------------------------------------------------|------------------|
| 1     | Kharkof       | Kharkof                                                        | check            |
| 2     | Overland      | Overland                                                       | check            |
| 3     | Wesley        | Wesley                                                         | check            |
| 4     | Jerry         | Jerry                                                          | check            |
| 5     | NX05M4180-6   | 92201D5-2-29 X 99 waxy bulk                                    | ARS-LNK          |
| 6     | NE06469       | UNK                                                            | UNL              |
| 7     | NE06607       | NE98466=(KS89H50-4/NE90518(=BRL//SXL/BENN))/WESLEY             | UNL              |
| 8     | NE07521       | R-236 (CO970901) =(YUMA/T-57//LAMAR/3/4*YUMA/4/NEW516)/NI00436 | UNL              |
| 9     | NE07531       | HBK0630-4-5=(HBA142A/HBZ623A//ALE)/NE98574=(CO850267/RAWHIDE   | UNL              |
| 10    | NW07534       | KS920709-B-5-2/NW98S061                                        | UNL              |
| 11    | NE07627       | KS96HW10-3=(KS91HW29// RIO BLANCO/KS91H184)/WAHOO//NE99585     | UNL              |
| 12    | NI07703       | R-148 (G97343) =(919021/B725//K92)                             | UNL              |
| 13    | BC01007-7     | W99-331/97x0906-8                                              | AGRIPRO NORTH    |
| 14    | 00X0100-51    | W95-301/W98-151                                                | AGRIPRO NORTH    |
| 15    | HV9W04-1594R  | KS89180B-2-1-1/CMBW91M02959T//JGR                              | WestBred Haven   |
| 16    | HV9W05-1125R  | 00KSULR-73/G980039                                             | WestBred Haven   |
| 17    | CA9W06-788    | Jerry/CDC Falcon                                               | WestBred-Fargo   |
| 18    | CA9W07-817    | CDC Falcon/Jerry                                               | WestBred-Fargo   |
| 19    | CA9W08-856    | Jerry/CDC Falcon                                               | WestBred-Fargo   |
| 20    | BZ9W05-2039   | Vanguard/BZ9W96-895                                            | WestBred-Bozeman |
| 21    | BZ9W05-2043   | Rampart/Kestrel                                                | WestBred-Bozeman |
| 22    | SD05085-1     | SD92107-2/TX96D2845                                            | SDSU             |
| 23    | SD05118-1     | Wesley/NE93613                                                 | SDSU             |
| 24    | SD05W030      | SD98W302/NW97S186                                              | SDSU             |
| 25    | SD06069       | Harry/Wesley//Jerry                                            | SDSU             |
| 26    | SD06158       | Wesley/CDC Falcon                                              | SDSU             |
| 27    | SD07056       | CDC Falcon/SD97060//Jagalene                                   | SDSU             |
| 28    | SD07126       | SD92107-2/SD99W042                                             | SDSU             |
| 29    | SD07165       | SD97250/SD99W006//Avalanche                                    | SDSU             |
| 30    | SD07184       | Expedition/SD97W650//KS00H10-32-1-1                            | SDSU             |
| 31    | SD07W053      | Wendy/SD00W073//KS01HW54-1                                     | SDSU             |
| 32    | MTS0532       | L'Govskaya 167/Rampart//MT9409                                 | MT State         |
| 33    | MTS0713       | 93X312E14/NuHorizon                                            | MT State         |
| 34    | MTS0721       | DMS/Rampart//Pronghorn/3/2*Rampart                             | MT State         |



# Hard Winter Wheat Quality Report 2010 NRPN-NCP

|                          |    |                           |    |
|--------------------------|----|---------------------------|----|
| 1 - Test weight          | 10 | 11 - Flour protein        | 8  |
| 2 - SKCS kernel weight   | 8  | 12 - Bake absorption      | 15 |
| 3 - Kernel weight SD     | 8  | 13 - Mixograph absorption | 5  |
| 4 - SKCS kernel diameter | 8  | 14 - Bake mix time        | 10 |
| 5 - Kernel diameter SD   | 8  | 15 - Mixograph mix time   | 5  |
| 6 - SKCS hardness        | 10 | 16 - Mixograph tolerance  | 5  |
| 7 - Hardness SD          | 8  | 17 - Dough weight         |    |
| 8 - Flour yield          | 30 | 18 - Proof height         | 2  |
| 9 - Flour ash            | 10 | 19 - Loaf volume          | 20 |
| 10 - Milling score       |    | 20 - Volume regression    | 5  |
|                          |    | 21 - Crumb grain          | 25 |

| ID           | Milling<br>Score | Rating    | %     | Baking<br>Score | Rating    | %     | 1RS | Trait<br>Deficiencies |
|--------------|------------------|-----------|-------|-----------------|-----------|-------|-----|-----------------------|
| Kharkof      | 46.1             | Very Poor | 71.7  | 67.0            | Very Good | 100.0 |     | 6,                    |
| Overland     | 59.6             | Very Good | 92.7  | 30.9            | Very Poor | 46.1  |     | 16,                   |
| Wesley       | 59.0             | Very Good | 91.7  | 49.3            | Good      | 73.5  |     | 14,15,                |
| Jerry        | 53.0             | Poor      | 82.4  | 49.6            | Good      | 74.0  |     | 3,5,                  |
| NX05M4180-6  | 28.0             | Very Poor | 43.5  | 31.5            | Very Poor | 47.0  | 1AL | 1,6,8,10,16,21,       |
| NE06469      | 55.3             | Poor      | 85.9  | 42.9            | Average   | 64.1  |     | 16,                   |
| NE06607      | 56.2             | Average   | 87.4  | 24.7            | Very Poor | 36.8  |     | 14,15,                |
| NE07521      | 52.0             | Very Poor | 80.9  | 39.8            | Average   | 59.3  |     | 1,5,15,20,            |
| NE07531      | 56.9             | Good      | 88.4  | 39.4            | Average   | 58.8  |     | 12,13,14,15,17,       |
| NW07534      | 54.8             | Poor      | 85.1  | 26.9            | Very Poor | 40.1  |     | 5,14,15,              |
| NE07627      | 55.5             | Average   | 86.3  | 33.2            | Poor      | 49.6  |     | 14,15,19,             |
| NI07703      | 54.9             | Poor      | 85.3  | 29.3            | Very Poor | 43.7  |     | 3,16,                 |
| Wolf         | 58.4             | Good      | 90.7  | 25.2            | Very Poor | 37.6  |     | 9,16,                 |
| SY Gold      | 56.7             | Good      | 88.2  | 34.5            | Poor      | 51.5  |     |                       |
| HV9W04-1594R | 51.7             | Very Poor | 80.4  | 40.7            | Average   | 60.7  | 1BL | 9,15,                 |
| HV9W05-1125R | 55.4             | Average   | 86.2  | 49.0            | Good      | 73.0  |     | 16,                   |
| CA9W06-788   | 52.2             | Very Poor | 81.1  | 50.8            | Good      | 75.8  |     | 14,15,                |
| CA9W07-817   | 55.5             | Average   | 86.3  | 53.4            | Very Good | 79.6  |     | 15,                   |
| CA9W08-856   | 53.3             | Poor      | 82.9  | 39.0            | Poor      | 58.2  |     | 20,                   |
| BZ9W05-2039  | 46.6             | Very Poor | 72.5  | 54.1            | Very Good | 80.7  |     | 1,2,4,8,14,15,        |
| BZ9W05-2043  | 60.6             | Very Good | 94.3  | 44.9            | Good      | 67.0  |     | 2,                    |
| SD05085-1    | 64.3             | Very Good | 100.0 | 43.7            | Average   | 65.2  |     | 14,15,                |
| SD05118-1    | 58.8             | Good      | 91.4  | 52.8            | Very Good | 78.8  |     | 15,                   |
| SD05W030     | 54.7             | Poor      | 85.0  | 49.1            | Good      | 73.3  | 1BL | 16,                   |
| SD06069      | 56.4             | Good      | 87.7  | 33.6            | Poor      | 50.1  |     | 14,15,                |
| SD06158      | 56.3             | Average   | 87.4  | 35.3            | Poor      | 52.7  |     | 15,                   |
| SD07056      | 60.6             | Very Good | 94.2  | 39.1            | Average   | 58.3  |     | 16,                   |
| SD07126      | 58.2             | Good      | 90.5  | 36.1            | Poor      | 53.9  |     | 15,                   |
| SD07165      | 57.3             | Good      | 89.1  | 43.5            | Average   | 64.8  |     | 14,15,                |
| SD07184      | 59.9             | Very Good | 93.1  | 51.5            | Very Good | 76.8  |     | 16,                   |

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



# Hard Winter Wheat Quality Report 2010 NRPN-NCP

|                          |    |                           |    |
|--------------------------|----|---------------------------|----|
| 1 - Test weight          | 10 | 11 - Flour protein        | 8  |
| 2 - SKCS kernel weight   | 8  | 12 - Bake absorption      | 15 |
| 3 - Kernel weight SD     | 8  | 13 - Mixograph absorption | 5  |
| 4 - SKCS kernel diameter | 8  | 14 - Bake mix time        | 10 |
| 5 - Kernel diameter SD   | 8  | 15 - Mixograph mix time   | 5  |
| 6 - SKCS hardness        | 10 | 16 - Mixograph tolerance  | 5  |
| 7 - Hardness SD          | 8  | 17 - Dough weight         |    |
| 8 - Flour yield          | 30 | 18 - Proof height         | 2  |
| 9 - Flour ash            | 10 | 19 - Loaf volume          | 20 |
| 10 - Milling score       |    | 20 - Volume regression    | 5  |
|                          |    | 21 - Crumb grain          | 25 |

| ID       | Milling<br>Score | Rating    | %    | Baking<br>Score | Rating    | %    | 1RS | Trait<br>Deficiencies |
|----------|------------------|-----------|------|-----------------|-----------|------|-----|-----------------------|
| SD07W053 | 55.9             | Average   | 86.9 | 48.9            | Good      | 72.9 | 1BL |                       |
| MTS0532  | 54.8             | Poor      | 85.2 | 53.9            | Very Good | 80.5 |     |                       |
| MTS0713  | 51.7             | Very Poor | 80.4 | 34.3            | Poor      | 51.2 |     | 9,10,14,15,           |
| MTS0721  | 55.6             | Average   | 86.4 | 31.0            | Very Poor | 46.2 |     | 2,4,16,               |

# 2010 NRPN Intraregional Production Zone

## North Central Plains

| LINE         | Wt/Bu<br>(lb) | SKCS Average Kernel |      |        |      |          |      | Hardness |       |              |                    |
|--------------|---------------|---------------------|------|--------|------|----------|------|----------|-------|--------------|--------------------|
|              |               | Moisture            |      | Weight |      | Diameter |      | SKCS     | Class | Distribution |                    |
|              |               | (%)                 | (sd) | (mg)   | (sd) | (mm)     | (sd) |          |       |              |                    |
| Kharkof      | 58.0          | 11.9                | 0.7  | 30.3   | 8.0  | 2.63     | 0.32 | 38       | 24    | MIXED        | 46--21--13--20--03 |
| Overland     | 57.3          | 12.4                | 0.9  | 31.3   | 8.1  | 2.62     | 0.33 | 58       | 14    | HARD         | 02--17--36--45--01 |
| Wesley       | 57.6          | 11.9                | 0.8  | 32.6   | 9.1  | 2.70     | 0.36 | 56       | 16    | HARD         | 06--22--33--39--02 |
| Jerry        | 57.7          | 12.0                | 0.7  | 35.4   | 10.5 | 2.73     | 0.40 | 48       | 18    | MIXED        | 19--28--27--26--03 |
| NX05M4180-6  | 53.9          | 12.3                | 0.7  | 28.7   | 7.8  | 2.57     | 0.33 | 29       | 19    | SOFT         | 59--22--13--06--04 |
| NE06469      | 58.2          | 12.1                | 0.9  | 33.3   | 9.7  | 2.72     | 0.37 | 54       | 16    | HARD         | 08--22--35--35--02 |
| NE06607      | 57.3          | 11.3                | 0.7  | 30.9   | 9.7  | 2.62     | 0.36 | 53       | 17    | MIXED        | 11--25--32--32--03 |
| NE07521      | 55.0          | 11.8                | 0.6  | 33.0   | 9.9  | 2.74     | 0.41 | 60       | 17    | HARD         | 07--15--27--51--02 |
| NE07531      | 57.2          | 11.7                | 0.8  | 28.5   | 8.1  | 2.55     | 0.34 | 52       | 16    | MIXED        | 11--27--30--32--03 |
| NW07534      | 57.4          | 11.7                | 0.9  | 33.0   | 9.9  | 2.72     | 0.42 | 59       | 16    | HARD         | 04--15--35--46--01 |
| NE07627      | 57.9          | 11.8                | 0.9  | 28.2   | 8.2  | 2.55     | 0.32 | 58       | 16    | HARD         | 06--18--31--45--02 |
| NI07703      | 58.5          | 11.9                | 0.9  | 33.7   | 10.5 | 2.70     | 0.38 | 53       | 16    | HARD         | 10--22--35--33--02 |
| BC01007-7    | 59.1          | 12.2                | 0.9  | 29.4   | 8.5  | 2.58     | 0.34 | 62       | 16    | HARD         | 04--10--27--59--01 |
| 00X0100-51   | 57.7          | 11.7                | 0.8  | 29.2   | 7.7  | 2.59     | 0.31 | 59       | 15    | HARD         | 04--17--30--49--01 |
| HV9W04-1594R | 57.4          | 11.8                | 0.9  | 28.1   | 8.4  | 2.57     | 0.33 | 76       | 16    | HARD         | 01--03--11--85--01 |
| HV9W05-1125R | 58.2          | 11.8                | 0.8  | 30.1   | 8.5  | 2.63     | 0.29 | 60       | 15    | HARD         | 02--16--28--54--01 |
| CA9W06-788   | 58.0          | 11.8                | 0.8  | 30.8   | 8.4  | 2.61     | 0.35 | 58       | 16    | HARD         | 06--20--27--47--02 |
| CA9W07-817   | 58.8          | 11.9                | 0.9  | 33.1   | 9.3  | 2.69     | 0.31 | 59       | 16    | HARD         | 04--15--29--52--01 |
| CA9W08-856   | 59.6          | 12.0                | 0.9  | 31.2   | 8.4  | 2.60     | 0.33 | 59       | 15    | HARD         | 05--15--31--49--01 |
| BZ9W05-2039  | 56.0          | 11.7                | 0.8  | 25.1   | 7.6  | 2.46     | 0.30 | 67       | 16    | HARD         | 01--06--21--72--01 |
| BZ9W05-2043  | 58.1          | 11.5                | 1.0  | 26.7   | 7.1  | 2.51     | 0.30 | 62       | 16    | HARD         | 05--12--27--56--01 |
| SD05085-1    | 60.5          | 12.1                | 1.0  | 33.3   | 8.8  | 2.71     | 0.34 | 54       | 16    | HARD         | 09--22--37--32--02 |
| SD05118-1    | 58.9          | 11.5                | 0.9  | 30.2   | 8.5  | 2.60     | 0.32 | 55       | 16    | HARD         | 08--23--31--38--02 |
| SD05W030     | 59.0          | 11.8                | 0.9  | 29.8   | 9.0  | 2.57     | 0.37 | 56       | 17    | HARD         | 07--19--33--41--02 |
| SD06069      | 58.8          | 11.3                | 0.7  | 30.3   | 8.6  | 2.58     | 0.33 | 55       | 16    | HARD         | 08--21--33--38--02 |
| SD06158      | 58.7          | 11.4                | 0.6  | 29.7   | 8.8  | 2.56     | 0.35 | 57       | 15    | HARD         | 05--20--28--47--01 |
| SD07056      | 59.0          | 11.8                | 0.8  | 30.9   | 8.4  | 2.63     | 0.31 | 62       | 16    | HARD         | 01--15--30--54--01 |
| SD07126      | 59.0          | 11.3                | 0.7  | 30.0   | 9.0  | 2.54     | 0.35 | 59       | 15    | HARD         | 02--19--34--45--01 |
| SD07165      | 59.1          | 11.6                | 0.7  | 31.0   | 9.2  | 2.64     | 0.36 | 54       | 16    | HARD         | 07--27--31--35--02 |
| SD07184      | 60.0          | 11.5                | 0.7  | 31.9   | 7.8  | 2.65     | 0.31 | 52       | 15    | HARD         | 09--26--33--32--02 |
| SD07W053     | 59.2          | 11.6                | 0.6  | 30.9   | 9.2  | 2.64     | 0.35 | 66       | 16    | HARD         | 04--06--22--68--01 |
| MTS0532      | 58.0          | 11.6                | 0.6  | 30.1   | 9.1  | 2.50     | 0.34 | 57       | 17    | HARD         | 08--18--25--49--02 |
| MTS0713      | 58.8          | 11.4                | 0.6  | 29.6   | 9.5  | 2.62     | 0.37 | 71       | 16    | HARD         | 01--04--16--79--01 |
| MTS0721      | 56.9          | 11.6                | 0.6  | 25.4   | 6.8  | 2.45     | 0.31 | 68       | 16    | HARD         | 01--06--23--70--01 |

# 2010 NRPN Intraregional Production Zone

## North Central Plains

| LINE         | Wheat   |               | Flour |         |       | Noodle Color |       |       |                |                |                |
|--------------|---------|---------------|-------|---------|-------|--------------|-------|-------|----------------|----------------|----------------|
|              | Protein | Milling Yield | Ash   | Protein | PPO   | L @ 0        | a @ 0 | b @ 0 | Delta L 24 hrs | Delta a 24 hrs | Delta b 24 hrs |
|              | (%)     | (%)           | (%)   | (%)     |       |              |       |       |                |                |                |
| Kharkof      | 14.1    | 69.0          | 0.42  | 12.5    | 0.661 | 80.30        | -1.96 | 21.76 | -12.33         | 1.28           | 3.33           |
| Overland     | 12.0    | 72.3          | 0.43  | 10.8    | 0.626 | 80.71        | -1.77 | 20.90 | -11.74         | 1.07           | 2.89           |
| Wesley       | 12.3    | 72.5          | 0.40  | 11.2    | 0.823 | 80.96        | -1.80 | 20.87 | -10.90         | 0.96           | 2.61           |
| Jerry        | 13.1    | 71.0          | 0.40  | 11.7    | 0.677 | 80.57        | -1.78 | 22.78 | -10.46         | 0.64           | 3.16           |
| NX05M4180-6  | 11.5    | 58.9          | 0.42  | 10.3    | 0.622 | 85.04        | -2.83 | 20.82 | -11.99         | 0.66           | 7.62           |
| NE06469      | 11.7    | 70.4          | 0.41  | 10.3    | 0.722 | 80.54        | -2.31 | 23.78 | -10.44         | 1.19           | 2.49           |
| NE06607      | 11.5    | 72.3          | 0.37  | 10.4    | 0.791 | 82.21        | -1.80 | 19.54 | -11.45         | 0.76           | 4.20           |
| NE07521      | 12.5    | 70.2          | 0.38  | 11.3    | 0.517 | 80.73        | -1.38 | 20.09 | -11.30         | 0.68           | 4.27           |
| NE07531      | 11.6    | 71.7          | 0.36  | 10.5    | 0.652 | 80.58        | -2.05 | 22.24 | -10.39         | 1.31           | 3.08           |
| NW07534      | 12.5    | 70.2          | 0.38  | 10.8    | 0.724 | 81.79        | -1.81 | 21.07 | -12.08         | 1.20           | 3.59           |
| NE07627      | 11.5    | 70.6          | 0.40  | 10.2    | 0.657 | 80.28        | -1.99 | 22.66 | -9.81          | 0.83           | 2.39           |
| NI07703      | 11.5    | 70.6          | 0.40  | 10.3    | 0.591 | 82.11        | -1.90 | 21.39 | -11.08         | 0.51           | 5.58           |
| BC01007-7    | 12.4    | 72.1          | 0.46  | 11.0    | 0.724 | 80.43        | -2.03 | 22.48 | -12.01         | 0.99           | 3.46           |
| 00X0100-51   | 11.9    | 69.9          | 0.38  | 10.4    | 0.574 | 80.22        | -1.80 | 22.46 | -9.82          | 0.79           | 3.13           |
| HV9W04-1594R | 11.9    | 67.8          | 0.46  | 10.7    | 0.445 | 81.94        | -1.68 | 20.93 | -11.58         | 0.69           | 5.11           |
| HV9W05-1125R | 12.4    | 69.6          | 0.45  | 11.0    | 0.743 | 80.47        | -1.85 | 22.14 | -11.32         | 0.97           | 2.37           |
| CA9W06-788   | 13.1    | 68.6          | 0.43  | 11.9    | 0.676 | 80.94        | -1.65 | 20.96 | -11.26         | 0.74           | 3.60           |
| CA9W07-817   | 13.0    | 69.2          | 0.42  | 12.0    | 0.647 | 80.52        | -1.72 | 22.06 | -6.22          | 0.80           | 3.05           |
| CA9W08-856   | 13.1    | 67.5          | 0.42  | 12.0    | 0.709 | 81.40        | -2.12 | 22.77 | -10.13         | 0.82           | 2.58           |
| BZ9W05-2039  | 13.4    | 65.4          | 0.40  | 12.1    | 0.875 | 81.86        | -1.53 | 19.80 | -11.78         | 0.33           | 3.51           |
| BZ9W05-2043  | 12.5    | 71.9          | 0.35  | 11.6    | 0.822 | 81.06        | -1.71 | 21.19 | -10.92         | 0.31           | 3.52           |
| SD05085-1    | 12.1    | 73.7          | 0.39  | 10.8    | 0.520 | 81.71        | -2.23 | 21.93 | -9.80          | 0.72           | 3.29           |
| SD05118-1    | 12.3    | 71.6          | 0.37  | 11.0    | 0.674 | 81.81        | -2.23 | 22.54 | -9.16          | 0.65           | 2.79           |
| SD05W030     | 12.0    | 70.5          | 0.40  | 10.4    | 0.386 | 82.25        | -2.45 | 22.98 | -8.67          | 0.63           | 4.80           |
| SD06069      | 12.4    | 70.6          | 0.40  | 11.2    | 0.773 | 80.84        | -1.45 | 18.84 | -10.24         | 0.59           | 3.64           |
| SD06158      | 12.8    | 70.6          | 0.41  | 11.6    | 0.812 | 81.54        | -1.77 | 19.07 | -11.86         | 1.08           | 2.86           |
| SD07056      | 12.2    | 72.7          | 0.45  | 10.7    | 0.662 | 80.12        | -1.58 | 20.17 | -11.97         | 0.96           | -1.56          |
| SD07126      | 13.2    | 71.6          | 0.40  | 12.0    | 0.745 | 79.79        | -1.64 | 21.40 | -11.49         | 0.89           | 2.92           |
| SD07165      | 12.1    | 71.0          | 0.37  | 10.9    | 0.687 | 81.66        | -2.17 | 21.20 | -10.89         | 0.91           | 4.15           |
| SD07184      | 12.6    | 70.4          | 0.38  | 11.1    | 0.671 | 80.56        | -2.43 | 22.90 | -10.74         | 1.22           | 2.53           |
| SD07W053     | 13.6    | 69.3          | 0.40  | 12.3    | 0.793 | 80.41        | -2.19 | 25.03 | -9.79          | 0.56           | 2.72           |
| MTS0532      | 13.2    | 71.4          | 0.41  | 12.0    | 0.880 | 80.76        | -2.00 | 22.87 | -12.98         | 1.10           | 3.18           |
| MTS0713      | 13.1    | 68.3          | 0.47  | 11.9    | 0.722 | 79.87        | -1.91 | 24.13 | -11.16         | 0.69           | 0.90           |
| MTS0721      | 12.0    | 70.2          | 0.42  | 10.8    | 0.869 | 81.05        | -2.12 | 21.83 | -11.68         | 0.88           | 2.63           |

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## North Central Plains

|              | Flour Protein | Mixograph  |       |           |           |
|--------------|---------------|------------|-------|-----------|-----------|
|              |               | Absorption | As-Is | Corrected | Tolerance |
| Line         | (%)           | (%)        | (min) | (min)     |           |
| Kharkof      | 12.5          | 63.8       | 4.00  | 4.00      | 4         |
| Overland     | 10.8          | 60.8       | 2.75  | 2.34      | 2         |
| Wesley       | 11.2          | 60.7       | 7.00  | 6.35      | 4         |
| Jerry        | 11.7          | 61.3       | 5.13  | 4.92      | 3         |
| NX05M4180-6  | 10.3          | 61.2       | 2.50  | 2.00      | 1         |
| NE06469      | 10.3          | 60.1       | 4.38  | 3.50      | 2         |
| NE06607      | 10.4          | 60.2       | 6.13  | 4.94      | 4         |
| NE07521      | 11.3          | 61.7       | 5.88  | 5.37      | 4         |
| NE07531      | 10.5          | 58.4       | 5.50  | 4.49      | 3         |
| NW07534      | 10.8          | 61.0       | 6.13  | 5.27      | 5         |
| NE07627      | 10.2          | 59.9       | 6.00  | 4.70      | 3         |
| NI07703      | 10.3          | 60.1       | 5.13  | 4.09      | 2         |
| BC01007-7    | 11.0          | 59.2       | 5.13  | 4.50      | 2         |
| 00X0100-51   | 10.4          | 60.4       | 4.50  | 3.66      | 4         |
| HV9W04-1594R | 10.7          | 60.8       | 5.38  | 4.56      | 4         |
| HV9W05-1125R | 11.0          | 61.3       | 3.50  | 3.09      | 2         |
| CA9W06-788   | 11.9          | 61.8       | 7.00  | 6.91      | 5         |
| CA9W07-817   | 12.0          | 62.9       | 5.38  | 5.37      | 4         |
| CA9W08-856   | 12.0          | 64.4       | 5.00  | 4.98      | 5         |
| BZ9W05-2039  | 12.1          | 63.2       | 5.88  | 5.88      | 5         |
| BZ9W05-2043  | 11.6          | 61.2       | 5.00  | 4.75      | 4         |
| SD05085-1    | 10.8          | 59.9       | 6.63  | 5.65      | 3         |
| SD05118-1    | 11.0          | 61.3       | 5.75  | 5.08      | 4         |
| SD05W030     | 10.4          | 60.2       | 4.38  | 3.52      | 2         |
| SD06069      | 11.2          | 61.6       | 5.75  | 5.21      | 5         |
| SD06158      | 11.6          | 62.3       | 6.25  | 5.96      | 4         |
| SD07056      | 10.7          | 59.7       | 2.75  | 2.31      | 2         |
| SD07126      | 12.0          | 61.9       | 5.38  | 5.36      | 3         |
| SD07165      | 10.9          | 61.1       | 6.38  | 5.52      | 4         |
| SD07184      | 11.1          | 59.9       | 3.63  | 3.24      | 2         |
| SD07W053     | 12.3          | 60.0       | 4.13  | 4.13      | 3         |
| MTS0532      | 12.0          | 61.9       | 5.00  | 4.98      | 3         |
| MTS0713      | 11.9          | 61.7       | 7.00  | 6.91      | 4         |
| MTS0721      | 10.8          | 60.9       | 4.63  | 3.95      | 2         |

# 2010 NRPN Intraregional Production Zone

## North Central Plains

| Line         | RVA                |                   |                     |           |                    |             |              |                 |
|--------------|--------------------|-------------------|---------------------|-----------|--------------------|-------------|--------------|-----------------|
|              | Stirring<br>Number | Peak<br>Viscosity | Trough<br>Viscosity | Breakdown | Final<br>Viscosity | Set<br>back | Peak<br>Time | Pasting<br>Temp |
|              | (RVU)              | (RVU)             | (RVU)               | (RVU)     | (RVU)              | (RVU)       | (min)        | (Deg. C)        |
| Kharkof      | 153.58             | 217.58            | 150.75              | 66.83     | 262.58             | 111.83      | 6.33         | 86.50           |
| Overland     | 128.00             | 209.58            | 145.00              | 64.58     | 259.75             | 114.75      | 6.27         | 66.90           |
| Wesley       | 120.67             | 206.83            | 137.25              | 69.58     | 260.75             | 123.50      | 6.13         | 66.95           |
| Jerry        | 126.00             | 176.42            | 115.17              | 61.25     | 216.00             | 100.83      | 6.07         | 67.00           |
| NX05M4180-6  | 76.25              | 76.08             | 30.67               | 45.42     | 45.75              | 15.08       | 3.73         | 68.55           |
| NE06469      | 118.08             | 170.33            | 108.25              | 62.08     | 198.92             | 90.67       | 6.13         | 68.70           |
| NE06607      | 97.67              | 255.08            | 147.25              | 107.83    | 249.67             | 102.42      | 6.20         | 66.20           |
| NE07521      | 120.92             | 214.58            | 147.58              | 67.00     | 272.17             | 124.58      | 6.20         | 66.85           |
| NE07531      | 132.67             | 238.33            | 166.58              | 71.75     | 294.08             | 127.50      | 6.33         | 67.70           |
| NW07534      | 108.67             | 150.00            | 81.58               | 68.42     | 170.33             | 88.75       | 5.73         | 67.70           |
| NE07627      | 113.75             | 170.00            | 105.08              | 64.92     | 206.00             | 100.92      | 5.93         | 67.00           |
| NI07703      | 102.92             | 198.58            | 112.75              | 85.83     | 214.17             | 101.42      | 6.00         | 66.90           |
| BC01007-7    | 114.75             | 167.33            | 103.58              | 63.75     | 202.08             | 98.50       | 5.87         | 66.85           |
| 00X0100-51   | 129.42             | 193.33            | 126.08              | 67.25     | 242.50             | 116.42      | 6.07         | 66.95           |
| HV9W04-1594R | 127.67             | 172.08            | 109.42              | 62.67     | 206.83             | 97.42       | 6.07         | 67.70           |
| HV9W05-1125R | 132.17             | 230.17            | 158.67              | 71.50     | 285.58             | 126.92      | 6.20         | 66.10           |
| CA9W06-788   | 130.33             | 185.83            | 123.58              | 62.25     | 234.75             | 111.17      | 6.13         | 67.80           |
| CA9W07-817   | 134.00             | 204.50            | 148.50              | 56.00     | 261.17             | 112.67      | 6.27         | 66.95           |
| CA9W08-856   | 152.42             | 203.25            | 151.83              | 51.42     | 269.75             | 117.92      | 6.27         | 67.80           |
| BZ9W05-2039  | 131.25             | 184.42            | 124.08              | 60.33     | 236.92             | 112.83      | 6.00         | 84.85           |
| BZ9W05-2043  | 114.50             | 205.67            | 135.67              | 70.00     | 254.42             | 118.75      | 6.07         | 66.90           |
| SD05085-1    | 118.00             | 199.67            | 136.08              | 63.58     | 256.25             | 120.17      | 6.13         | 67.80           |
| SD05118-1    | 107.92             | 164.67            | 89.75               | 74.92     | 180.58             | 90.83       | 5.80         | 67.80           |
| SD05W030     | 112.25             | 146.08            | 82.42               | 63.67     | 171.50             | 89.08       | 5.73         | 82.30           |
| SD06069      | 149.58             | 200.67            | 149.25              | 51.42     | 263.17             | 113.92      | 6.27         | 86.40           |
| SD06158      | 145.75             | 200.83            | 149.83              | 51.00     | 265.00             | 115.17      | 6.27         | 86.50           |
| SD07056      | 127.58             | 205.83            | 141.08              | 64.75     | 257.25             | 116.17      | 6.20         | 66.05           |
| SD07126      | 136.25             | 211.33            | 133.42              | 77.92     | 245.42             | 112.00      | 6.13         | 67.00           |
| SD07165      | 123.58             | 222.17            | 151.67              | 70.50     | 267.67             | 116.00      | 6.27         | 67.70           |
| SD07184      | 130.42             | 218.75            | 149.08              | 69.67     | 262.08             | 113.00      | 6.27         | 67.80           |
| SD07W053     | 142.58             | 223.42            | 156.67              | 66.75     | 270.33             | 113.67      | 6.40         | 67.80           |
| MTS0532      | 102.17             | 133.67            | 60.50               | 73.17     | 132.25             | 71.75       | 5.47         | 67.75           |
| MTS0713      | 113.17             | 178.50            | 107.33              | 71.17     | 206.67             | 99.33       | 6.07         | 67.80           |
| MTS0721      | 118.83             | 230.58            | 147.33              | 83.25     | 275.08             | 127.75      | 6.13         | 66.10           |

# 2010 NRPN Intraregional Production Zone

## North Central Plains

| Line         | Flour   |            | Mix Time |           | Dough  |              |             |           |                 |                       |
|--------------|---------|------------|----------|-----------|--------|--------------|-------------|-----------|-----------------|-----------------------|
|              | Protein | Water Abs. | As-is    | Corrected | Weight | Proof Height | Crumb Grain | As-Rec'd. | Specific Volume | Loaf Volume Potential |
|              | (%)     | (%)        | (min)    | (min)     | (g)    | (cm)         |             | (cc)      | (cc/g)          | (cc/%)                |
| Kharkof      | 12.5    | 64.0       | 5.25     | 5.25      | 176.8  | 7.7          | 5.0         | 935       | 6.2             | 67                    |
| Overland     | 10.8    | 60.8       | 3.50     | 2.98      | 170.6  | 7.5          | 2.5         | 870       | 5.8             | 73                    |
| Wesley       | 11.2    | 60.6       | 8.50     | 7.71      | 169.2  | 7.8          | 5.0         | 945       | 6.4             | 78                    |
| Jerry        | 11.7    | 61.4       | 5.88     | 5.64      | 170.5  | 7.6          | 4.0         | 890       | 6.0             | 68                    |
| NX05M4180-6  | 10.3    | 60.5       | 3.38     | 2.70      | 170.5  | 7.5          | 0.0         | 895       | 6.0             | 80                    |
| NE06469      | 10.3    | 61.3       | 5.88     | 4.69      | 170.6  | 7.5          | 3.0         | 860       | 5.7             | 75                    |
| NE06607      | 10.4    | 60.5       | 8.50     | 6.85      | 169.6  | 7.5          | 4.8         | 875       | 5.9             | 77                    |
| NE07521      | 11.3    | 61.2       | 6.50     | 5.94      | 170.1  | 7.6          | 3.0         | 850       | 5.7             | 66                    |
| NE07531      | 10.5    | 59.5       | 8.63     | 7.04      | 168.3  | 7.4          | 4.0         | 905       | 6.2             | 80                    |
| NW07534      | 10.8    | 62.6       | 8.13     | 6.99      | 171.3  | 7.7          | 3.5         | 855       | 5.7             | 70                    |
| NE07627      | 10.2    | 61.5       | 7.50     | 5.87      | 170.4  | 7.6          | 3.0         | 825       | 5.6             | 72                    |
| NI07703      | 10.3    | 60.3       | 6.00     | 4.79      | 170.3  | 7.3          | 3.5         | 855       | 5.8             | 75                    |
| BC01007-7    | 11.0    | 60.2       | 6.88     | 6.03      | 169.8  | 7.5          | 2.5         | 835       | 5.6             | 67                    |
| 00X0100-51   | 10.4    | 61.6       | 5.75     | 4.68      | 170.8  | 7.4          | 2.5         | 850       | 5.7             | 73                    |
| HV9W04-1594R | 10.7    | 61.5       | 6.00     | 5.09      | 171.6  | 7.5          | 3.0         | 830       | 5.5             | 68                    |
| HV9W05-1125R | 11.0    | 61.5       | 4.63     | 4.09      | 171.0  | 8.0          | 3.0         | 895       | 5.9             | 74                    |
| CA9W06-788   | 11.9    | 62.0       | 7.88     | 7.78      | 170.2  | 9.0          | 4.0         | 990       | 6.7             | 78                    |
| CA9W07-817   | 12.0    | 62.4       | 6.25     | 6.23      | 171.4  | 8.0          | 4.0         | 935       | 6.2             | 71                    |
| CA9W08-856   | 12.0    | 64.6       | 6.38     | 6.36      | 173.6  | 7.2          | 3.5         | 890       | 5.9             | 66                    |
| BZ9W05-2039  | 12.1    | 63.4       | 8.50     | 8.50      | 172.3  | 8.0          | 5.0         | 940       | 6.3             | 70                    |
| BZ9W05-2043  | 11.6    | 61.5       | 7.13     | 6.77      | 170.1  | 7.8          | 3.0         | 940       | 6.3             | 74                    |
| SD05085-1    | 10.8    | 60.3       | 8.00     | 6.81      | 169.7  | 7.6          | 5.0         | 875       | 5.8             | 73                    |
| SD05118-1    | 11.0    | 61.6       | 7.00     | 6.18      | 170.3  | 7.7          | 5.0         | 930       | 6.3             | 78                    |
| SD05W030     | 10.4    | 60.5       | 5.63     | 4.53      | 169.6  | 7.6          | 4.0         | 880       | 5.9             | 78                    |
| SD06069      | 11.2    | 61.7       | 7.75     | 7.02      | 170.8  | 8.0          | 5.5         | 960       | 6.5             | 80                    |
| SD06158      | 11.6    | 61.6       | 6.75     | 6.43      | 170.4  | 7.9          | 4.5         | 950       | 6.4             | 75                    |
| SD07056      | 10.7    | 60.3       | 3.88     | 3.26      | 170.1  | 7.4          | 3.0         | 835       | 5.6             | 69                    |
| SD07126      | 12.0    | 62.6       | 6.75     | 6.72      | 171.6  | 7.9          | 3.8         | 950       | 6.4             | 72                    |
| SD07165      | 10.9    | 62.5       | 9.25     | 8.00      | 171.2  | 7.6          | 4.0         | 900       | 6.1             | 76                    |
| SD07184      | 11.1    | 61.6       | 5.50     | 4.91      | 170.4  | 7.2          | 4.0         | 885       | 6.0             | 72                    |
| SD07W053     | 12.3    | 61.5       | 5.63     | 5.63      | 170.4  | 7.3          | 3.0         | 920       | 6.2             | 67                    |
| MTS0532      | 12.0    | 62.5       | 6.13     | 6.11      | 170.9  | 7.8          | 4.0         | 950       | 6.4             | 72                    |
| MTS0713      | 11.9    | 61.3       | 7.25     | 7.16      | 170.6  | 7.8          | 3.5         | 965       | 6.6             | 75                    |
| MTS0721      | 10.8    | 60.5       | 5.88     | 5.02      | 170.3  | 7.6          | 3.5         | 845       | 5.7             | 69                    |