

Plantes

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## Triticale d'automne 2017 Wintertriticale 2017

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**De nombreux auxiliaires et autres personnes. Un grand merci à tous !**

## Impressum

|                 |                                                                                                                               |
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## Signification des termes utilisés / Bedeutung der erfassten Merkmale

### **Quantité de semence / Saatmenge:**

- *Saatmenge: gleich für alle Sorten aufgrund des Tausendkorngewichtes und der Keimfähigkeit standardisiert*
- **quantité de semence: égale pour toutes les variétés, selon les conditions locales et standardisée en se basant sur le poids de 1000 grains et la faculté germinative**

### **Grandeur des parcelles / Parzellengrösse:**

- *Parzellengrösse: 7 - 15 m<sup>2</sup>*
- **grandeur des parcelles : 7 à 15 m<sup>2</sup>**

### **Disposition de l'essai / Versuchsanlage:**

- *als 5 x 3 Gitter, mit 3 Wiederholungen angelegt*
- **disposition de l'essai en 3 répétitions selon un schéma lattis de 5 x 3**

### **Soin de la culture / Pflegemassnahmen:**

- *Düngung und Unkrautbekämpfung ortsüblich*
- **fumure et herbicide selon les pratiques locales**

### **Rendement absolu / Ertrag abs. q/ha: (307)**

- *standardisiert auf 15 % Wassergehalt*
- **rendement absolu en q/ha ramené à 15 % d'humidité**

### **Rendement relatif / Ertrag rel. Standard. %: (308)**

- *Relativertrag zum Durchschnitt der Standardsorten*
- **rendement relatif par rapport à la moyenne du standard**

### **Rendement relatif par rapport à la moyenne / Ertrag rel. Mittel: (309)**

- *Relativertrag zum Versuchsmittel*
- **rendement relatif par rapport à la moyenne de l'essai**

### **Verse / Standfestigkeit: (310)**

- *mit einer Boniturskala von 1 - 9 beurteilt (1 = aufrechtstehend, 9 = 100 %ige Lagerung)*
- **résistance à la verse, échelle de 1 à 9 (1 = pas de verse, 9 = 100 % de verse)**

### **Hauteur des plantes / Pflanzenlänge: (311)**

- *durchschnittliche Pflanzenhöhe in cm*
- **hauteur moyenne des plantes en cm**

### **Épiaison / Aehrenschieben +/- Tage: (312)**

- *die Plus- und Minusdifferenz des Aehrenschiebedatums zur Standardsorte wird in Anzahl Tagen angegeben*
- **épiaison, +/- jours par rapport à la variété standard**

**Triage / Ausbeute:** (301)

- *bestimmt mit fixierter Einstellung eines Windsichters (Pelz)*
- **rendement au triage déterminé à l'aide d'une installation fixe (Pelz)**

**Poids à l'hectolitre(Phl) / Hektolitergewicht (HG) :** (303)

- *nach offiziellen Messvorschriften bestimmt*
- **poids à l'hectolitre déterminé par les tables de mesure officielle**

**Poids de 1000 grains (PMG) /**

*Tausendkorngewicht (TKG):* (304)

- *Gewicht von 1000 Körner*
- **poids de 1000 grains**

**Aspect du grain / Kornnote:** (327)

- *visuelle Beurteilung der Kornausbildung mit einer Note von 1 bis 9*
- **aspect visuel de la formation du grain à la récolte sur la base d'une échelle de 1 à 9**

**Protéine / Protein-TS-Korn:** (305)

- *der in % angegebene Rohproteingehalt in den Getreidekörnern, wird mit Hilfe der Infrarotreflexionsmessung bestimmt (auf Trockensubstanz-Gehalt umgerechnet).*
- **contenu en protéine brute, mesuré à l'aide d'un rayon infrarouge (résultat en fonction du taux de l'humidité)**

**Rendement protéine / Protein-Ertrag q/ha:** (306)

- *der aus dem Körnerertrag und Proteingehalt berechnete Ertrag an Protein pro Fläche*
- **rendement en protéine, calculé à la surface en fonction du rendement absolu en grains**

**Levée / Auflaufen:** (333)

- *wurde in Parzellenversuchen erhoben und mit einer Boniturskala von 1 bis 9 beurteilt*
- **note de levée, évaluée dans les essais d'homologation à l'aide d'une échelle de 1 à 9**

**Etat après l'hiver / Stand nach dem Winter:** (334)

- *mit einer Boniturskala von 1 bis 9 beurteilt*
- **état de la culture après l'hiver, échelle de 1 à 9**

**Hivernage / Ueberwinterung:** (335)

- *Stand nach Winter minus Auflaufen*
- **dégâts causés par l'hiver; état après l'hiver moins la note de levée**

**Enneigement / Schneeschimmel.:** (322)

- mit einer Boniturskala von 1 bis 9 beurteilt
- **résistance à l'enneigement, échelle de 1 à 9**

**Oïdium, Helminth., Rhynch., Fusariose / Mehltau, Helminth., Rhynchospor., Fusarium:** (313, 320, 321)

- der natürliche Befall wurde in Parzellenversuchen erhoben und mit einer Boniturskala von 1 bis 9 beurteilt (1 = resistent, 9 = stark befallen)
- **oïdium, helminthosporiose, rhynchosporiose: infection naturelle en plein champ avec une échelle de 1 à 9 (1 = résistant, 9 = forte sensibilité)**

**Oïdium, Rouille brune, Septoria, Fusarium / Mehltau, Braunrost, Septoria, Fusarium**  
Prüfungen: (211, 223)

- Befall wird nach künstlicher Infektion in den Zuchtgärten erhoben (Boniturskala von 1 bis 9)
- **oïdium, rouille brune: infection artificielle, évaluée dans les pépinières (échelle de 1 à 9)**

**Virulence de l'oïdium / Mehltau Virulenz:** (213)

- Keimblattprüfung im Labor
- **oïdium, virulence: test de virulence en laboratoire au stade plantule**

**Vigueur au départ / Ueppigkeit:** (336)

- Üppigkeit beim Schossen mit einer Boniturskala von 1 bis 9 beurteilt
- **vigueur à la montaison, échelle de 1 à 9**

**Etat sanitaire du feuillage / Blattgesundheit allgemein:** (318)

- allgemeiner Gesundheitszustand der Blätter (Boniturskala von 1 bis 9)
- **état sanitaire du feuillage, échelle de 1 à 9**

**Etat sanitaire de la plante /**

**Pflanzengesundheit allgemein.:** (319)

- mit einer Boniturskala von 1 bis 9 beurteilt
- **état sanitaire général de la plante, échelle de 1 à 9**

**Chlorops / Halmfliege:** (325)

- Halmfliegenbefall mit einer Boniturskala von 1 bis 9 beurteilt
- **résistance aux attaques dues au chlorops, échelle de 1 à 9**

**Grillures foliaires / Sprenkelnekrosen :**

- Sprenkelnekrosen (*Ramularia collo cygni*) mit einer Boniturskala von 1 bis 9 beurteilt
- **résistance aux attaques de grillures foliaires, échelle de 1 à 9**

# Calcul de l'indice global

Standards :

Trialdo, Larossa

| Caractéristiques observées           |               |                              | Différence nécessaires pour l'obtention d'un bonus ou d'un malus par rapport à la moyenne |            |
|--------------------------------------|---------------|------------------------------|-------------------------------------------------------------------------------------------|------------|
|                                      | unité         | valeurs éliminatoires        | bonus (+1)                                                                                | malus (-1) |
| <b>Caractéristiques principales</b>  |               |                              |                                                                                           |            |
| Rdt en grains (15% H <sub>2</sub> O) | en dt/ha      | < -5 (rdt std)               |                                                                                           |            |
| Verse                                | note (1-9)    | > 2 (std)                    | ≤ -1                                                                                      | ≥ +1       |
| Précocité                            | épiaison      |                              |                                                                                           |            |
|                                      | std +/- jours | > 5 (std)                    | ≤ -2                                                                                      | ≥ +3       |
| Protéine                             | pour-cent     |                              | ≥ +1 (std)                                                                                | ≤ -1 (std) |
| PHL                                  | kg            | < 62 (abs)                   | ≥ +1                                                                                      | ≤ -2       |
| Rouille jaune                        | note (1-9)    | ≥ 5 (abs)                    | ≤ -1                                                                                      | ≥ +1       |
| Rouille brune                        | note (1-9)    | ≥ 6 (abs)                    | ≤ -1                                                                                      | ≥ +1       |
| Septoria nodorum feuille             | index         | > 25 (std) et<br>> 125 (abs) | ≤ -15                                                                                     | ≥ +15      |
| Septoria nodorum épi                 | index         | > 25 (std)                   | ≤ -15                                                                                     | ≥ +15      |
| Fusariose sur épi                    | note (1-9)    | > 7 (abs)                    | < +4 (abs)                                                                                | > +6 (abs) |

## Caractéristiques circonstancielles

|                      |            |           |            |              |
|----------------------|------------|-----------|------------|--------------|
| Germination sur pied | note (1-9) | > 7 (abs) | ≤ -2       | ≥ +2         |
| Hivernage            | note (1-9) | > 3 (abs) | ≤ -2       | ≥ +2         |
| Oïdium               | note (1-9) | > 3 (abs) | ≤ -1 (std) | ≥ +4,5 (std) |
| Septoria nodorum     | note (1-9) |           |            |              |

## Autres observations

|                     |            |
|---------------------|------------|
| Hauteur des plantes | cm         |
| PMG                 | g          |
| PV                  | note (1-9) |
| Fusariose sur épi   | note (1-9) |

# **Résultats bisannuels Triticale d'automne**

## **Zweijährige Ergebnisse Wintertriticale**

**2016 - 2017**

## Résultats et indices 2016 - 2017

| Critères                            | Standards    |              | Moy.<br>standard | HV2             |
|-------------------------------------|--------------|--------------|------------------|-----------------|
|                                     | Trialdo      | Larossa      |                  |                 |
|                                     | 911.54087    | 911.54502    |                  | 911.54868       |
| <b>Caractéristiques principales</b> |              |              |                  |                 |
| Rendement absolu, dt/ha             | <b>72.0</b>  | <b>80.2</b>  | <b>76.1</b>      | 79.1            |
| Rendement relatif, %                | <b>94.6</b>  | <b>105.4</b> | <b>100.0</b>     | 103.9           |
| Résistance à la verse, note         | <b>2.3</b>   | <b>2.5</b>   | <b>2.4</b>       | 3.2             |
| Epiaison, +/- jours rap. std        | <b>0.7</b>   | <b>-0.7</b>  | <b>0.0</b>       | 2.3             |
| Protéine, %                         | <b>11.5</b>  | <b>12.4</b>  | <b>12.0</b>      | 12.3            |
| Poids à l'hectolitre, kg            | <b>69.3</b>  | <b>66.5</b>  | <b>67.9</b>      | <b>69.0</b>     |
| Résistance à la rouille jaune, note | <b>1.0</b>   | <b>1.0</b>   | <b>1.0</b>       | 1.2             |
| Résistance à la rouille brune, note | <b>1.0</b>   | <b>1.0</b>   | <b>1.0</b>       | 1.0             |
| Sept. nodorum sur feuille, indice   | <b>98</b>    | <b>92</b>    | <b>95</b>        | 104             |
| Sept. nodorum sur épi, indice       | <b>73</b>    | <b>115</b>   | <b>94</b>        | 92              |
| Fusariose sur épi, note             | <b>3.9</b>   | <b>3.3</b>   | <b>3.6</b>       | 3.0             |
| <b>Caract. circonstancielle</b>     |              |              |                  |                 |
| Germination sur pied, note          |              |              |                  |                 |
| Hivernage, note                     | <b>1.0</b>   | <b>1.1</b>   | <b>1.0</b>       | 1.0             |
| Oïdium, note                        | <b>1.5</b>   | <b>1.1</b>   | <b>1.3</b>       | 1.1             |
| Sept. nodorum sur feuille, note     | <b>3.1</b>   | <b>2.8</b>   | <b>3.0</b>       | 2.7             |
| <b>Autres observations</b>          |              |              |                  |                 |
| Hauteur des plantes, cm             | <b>116.0</b> | <b>123.1</b> | <b>119.6</b>     | 118.8           |
| Poids de 1000 grains, g             | <b>40.0</b>  | <b>41.4</b>  | <b>40.7</b>      | 41.8            |
| <b>Bonus</b>                        | <b>2</b>     |              |                  | <b>1</b>        |
| <b>Malus</b>                        |              | <b>1</b>     |                  |                 |
| Indice total lors du test           | <b>96.6</b>  | <b>104.4</b> | <b>100.0</b>     | <b>104.9</b>    |
| Indice limite d'admission           |              |              |                  | <b>&gt; 103</b> |

 = éliminatoire

## Récapitulatif des résultats 2016 - 2017

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| No<br>Exper. | Nom<br>Variété        | Rendt<br>absolu<br>q/ha | Rendt<br>rel. St.<br>% | Rendt<br>relatif<br>trié | Verse<br>préc.<br>note | Verse<br>interm.<br>note | Verse<br>tard.<br>note | Verse<br>moyenne |
|--------------|-----------------------|-------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|------------------|
| 17 40        | -911.54087 TRIALDO    | 86.6                    | <b>97.2</b>            | 98.2                     | 2.9                    | 3.1                      | 2.6                    | 2.5              |
| 16 40        | -911.54087 TRIALDO    | 57.3                    | <b>91.0</b>            | 91.4                     | 1.0                    | 1.1                      | 2.0                    | 1.2              |
| Moy.pond.    | -911.54087 TRIALDO    | 72.0                    | <b>94.6</b>            | 95.2                     | 1.7                    | 2.1                      | 2.3                    | 1.8              |
| 17 40        | -911.54502 LAROSSA    | 91.7                    | <b>102.9</b>           | 102.0                    | 2.0                    | 2.1                      | 2.2                    | 1.9              |
| 16 40        | -911.54502 LAROSSA    | 68.7                    | <b>109.0</b>           | 108.4                    | 1.0                    | 1.3                      | 3.0                    | 1.5              |
| Moy.pond.    | -911.54502 LAROSSA    | 80.2                    | <b>105.4</b>           | 104.6                    | 1.4                    | 1.7                      | 2.5                    | 1.7              |
| 17 40        | 0.00000 -Référence(s) | 89.1                    | <b>100.0</b>           | 100.0                    | 2.4                    | 2.6                      | 2.4                    | 2.2              |
| 16 40        | 0.00000 -Référence(s) | 63.0                    | <b>100.0</b>           | 100.0                    | 1.0                    | 1.2                      | 2.5                    | 1.3              |
| Moy.pond.    | 0.00000 -Référence(s) | 76.1                    | <b>100.0</b>           | 100.0                    | 1.5                    | 1.9                      | 2.4                    | 1.7              |
| 17 40        | 911.54850             | 93.3                    | <b>104.7</b>           | 109.1                    | 1.9                    | 2.0                      | 3.3                    | 2.4              |
| 16 40        | 911.54850             | 66.1                    | <b>104.9</b>           | 110.1                    | 1.0                    | 1.0                      | 2.7                    | 1.4              |
| Moy.pond.    | 911.54850             | 79.7                    | <b>104.7</b>           | 109.5                    | 1.3                    | 1.5                      | 3.0                    | 1.8              |
| 17 40        | 911.54868             | 90.2                    | <b>101.2</b>           | 104.5                    | 1.7                    | 3.0                      | 3.3                    | 2.6              |
| 16 40        | 911.54868             | 68.0                    | <b>107.9</b>           | 111.6                    | 1.0                    | 1.9                      | 3.2                    | 1.6              |
| Moy.pond.    | 911.54868             | 79.1                    | <b>103.9</b>           | 107.4                    | 1.3                    | 2.4                      | 3.2                    | 2.1              |
| 17 40        | 911.54881             | 91.2                    | <b>102.4</b>           | 103.9                    | 1.1                    | 1.1                      | 1.6                    | 1.3              |
| 16 40        | 911.54881             | 71.1                    | <b>112.9</b>           | 118.7                    | 1.0                    | 1.1                      | 2.7                    | 1.4              |
| Moy.pond.    | 911.54881             | 81.1                    | <b>106.6</b>           | 110.1                    | 1.0                    | 1.1                      | 2.0                    | 1.3              |
| 17 40        | 911.54886             | 95.8                    | <b>107.5</b>           | 104.2                    | 1.3                    | 1.3                      | 2.3                    | 1.6              |
| 16 40        | 911.54886             | 72.3                    | <b>114.8</b>           | 113.5                    | 1.0                    | 1.0                      | 2.4                    | 1.3              |
| Moy.pond.    | 911.54886             | 84.1                    | <b>110.5</b>           | 108.2                    | 1.1                    | 1.2                      | 2.4                    | 1.4              |
| 17 40        | 911.54980             | 86.7                    | <b>97.3</b>            | 89.3                     | 1.8                    | 1.8                      | 2.4                    | 1.9              |
| 16 40        | 911.54980             | 70.6                    | <b>112.1</b>           | 111.0                    | 1.0                    | 1.4                      | 2.3                    | 1.4              |
| Moy.pond.    | 911.54980             | 78.7                    | <b>103.4</b>           | 98.6                     | 1.3                    | 1.6                      | 2.4                    | 1.6              |
| 17 40        | 911.54982             | 94.0                    | <b>105.5</b>           | 107.2                    | 1.8                    | 1.8                      | 2.0                    | 1.7              |
| 16 40        | 911.54982             | 70.0                    | <b>111.1</b>           | 116.5                    | 1.0                    | 1.0                      | 2.3                    | 1.3              |
| Moy.pond.    | 911.54982             | 82.0                    | <b>107.8</b>           | 111.1                    | 1.3                    | 1.4                      | 2.1                    | 1.5              |
| 17 40        | Nbr. d'obs.           | 18                      |                        |                          | 9                      | 9                        | 12                     | 4                |
| 16 40        | Nbr. d'obs.           | 18                      |                        |                          | 15                     | 9                        | 9                      | 5                |
| Total        | Nbr. d'obs.           | 36                      |                        |                          | 24                     | 18                       | 21                     | 9                |
| 17 40        | Nbr. d.lieux          | 6                       |                        |                          | 3                      | 3                        | 4                      | 4                |
| 16 40        | Nbr. d.lieux          | 6                       |                        |                          | 5                      | 3                        | 3                      | 5                |
| Total        | Nbr. d.lieux          | 12                      |                        |                          | 8                      | 6                        | 7                      | 9                |

## Récapitulatif des résultats 2016 - 2017

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| No<br>Exper. | Nom<br>Variété       | Hauteur<br>Plantes<br>cm | Epiaison<br>rap. tém<br>jours | Rdt.<br>au triage<br>% | Poids de<br>1000 grains<br>g | Poids à l'<br>hectolitre<br>kg/hl |
|--------------|----------------------|--------------------------|-------------------------------|------------------------|------------------------------|-----------------------------------|
| 17 40        | -911.54087 TRIALDO   | 114.3                    | 0.4                           | 89.6                   | 42.1                         | 70.3                              |
| 16 40        | -911.54087 TRIALDO   | 117.8                    | 1.0                           | 91.6                   | 37.8                         | 68.3                              |
| Moy.pond.    | -911.54087 TRIALDO   | 116.0                    | 0.7                           | 90.6                   | 40.0                         | 69.3                              |
| 17 40        | -911.54502 LAROSSA   | 119.1                    | -0.4                          | 87.9                   | 43.1                         | 68.1                              |
| 16 40        | -911.54502 LAROSSA   | 127.2                    | -1.0                          | 90.7                   | 39.8                         | 64.9                              |
| Moy.pond.    | -911.54502 LAROSSA   | 123.1                    | -0.7                          | 89.3                   | 41.4                         | 66.5                              |
| 17 40        | 0.00000 -Référence(s | 116.7                    | 0.0                           | 88.7                   | 42.6                         | 69.2                              |
| 16 40        | 0.00000 -Référence(s | 122.5                    | 0.0                           | 91.2                   | 38.8                         | 66.6                              |
| Moy.pond.    | 0.00000 -Référence(s | 119.6                    | 0.0                           | 90.0                   | 40.7                         | 67.9                              |
| 17 40        | 911.54850            | 122.4                    | 2.1                           | 92.4                   | 46.9                         | 69.8                              |
| 16 40        | 911.54850            | 126.7                    | 1.6                           | 95.7                   | 39.0                         | 64.0                              |
| Moy.pond.    | 911.54850            | 124.6                    | 1.8                           | 94.1                   | 42.9                         | 66.9                              |
| 17 40        | 911.54868            | 116.7                    | 2.6                           | 91.6                   | 43.8                         | 70.4                              |
| 16 40        | 911.54868            | 120.8                    | 2.0                           | 94.3                   | 39.9                         | 67.6                              |
| Moy.pond.    | 911.54868            | 118.8                    | 2.3                           | 93.0                   | 41.8                         | 69.0                              |
| 17 40        | 911.54881            | 117.2                    | 2.6                           | 90.0                   | 42.0                         | 67.7                              |
| 16 40        | 911.54881            | 126.4                    | 1.6                           | 95.9                   | 40.8                         | 67.6                              |
| Moy.pond.    | 911.54881            | 121.8                    | 2.1                           | 93.0                   | 41.4                         | 67.6                              |
| 17 40        | 911.54886            | 120.9                    | 3.1                           | 86.0                   | 42.3                         | 67.3                              |
| 16 40        | 911.54886            | 123.6                    | 1.4                           | 90.2                   | 38.4                         | 63.7                              |
| Moy.pond.    | 911.54886            | 122.3                    | 2.1                           | 88.1                   | 40.4                         | 65.5                              |
| 17 40        | 911.54980            | 118.1                    | 3.9                           | 81.4                   | 41.2                         | 65.4                              |
| 16 40        | 911.54980            | 125.0                    | 2.8                           | 90.3                   | 37.1                         | 64.0                              |
| Moy.pond.    | 911.54980            | 121.5                    | 3.3                           | 85.8                   | 39.2                         | 64.7                              |
| 17 40        | 911.54982            | 120.8                    | 1.4                           | 90.1                   | 42.5                         | 68.7                              |
| 16 40        | 911.54982            | 127.2                    | 1.3                           | 95.6                   | 39.6                         | 67.2                              |
| Moy.pond.    | 911.54982            | 124.0                    | 1.3                           | 92.8                   | 41.1                         | 68.0                              |
| 17 40        | Nbr. d'obs.          | 18                       | 5                             | 6                      | 6                            | 18                                |
| 16 40        | Nbr. d'obs.          | 18                       | 6                             | 6                      | 6                            | 18                                |
| Total        | Nbr. d'obs.          | 36                       | 11                            | 12                     | 12                           | 36                                |
| 17 40        | Nbr. d.lieux         | 6                        | 5                             | 6                      | 6                            | 6                                 |
| 16 40        | Nbr. d.lieux         | 6                        | 6                             | 6                      | 6                            | 6                                 |
| Total        | Nbr. d.lieux         | 12                       | 11                            | 12                     | 12                           | 12                                |

## Récapitulatif des résultats 2016 - 2017

| *****        |                       |                     |                           |                         |                             |                            |  |
|--------------|-----------------------|---------------------|---------------------------|-------------------------|-----------------------------|----------------------------|--|
| No<br>Exper. | Nom<br>Variété        | Protéine<br>M.S.NIT | Rdt.<br>protéines<br>q/ha | Dureté<br>grains<br>NIT | Protéine<br>par grain<br>mg | Aspect<br>du grain<br>note |  |
| 17 40        | -911.54087 TRIALDO    | 10.6                | 9.19                      | 26.7                    | 4.4                         | 3.5                        |  |
| 16 40        | -911.54087 TRIALDO    | 12.5                | 7.03                      | 27.7                    | 4.7                         | 4.7                        |  |
| Moy.pond.    | -911.54087 TRIALDO    | 11.5                | 8.11                      | 27.2                    | 4.6                         | 4.4                        |  |
| 17 40        | -911.54502 LAROSSA    | 11.5                | 10.69                     | 25.8                    | 5.0                         | 4.0                        |  |
| 16 40        | -911.54502 LAROSSA    | 13.4                | 9.10                      | 28.0                    | 5.3                         | 5.1                        |  |
| Moy.pond.    | -911.54502 LAROSSA    | 12.4                | 9.90                      | 26.9                    | 5.1                         | 4.8                        |  |
| 17 40        | 0.00000 -Référence(s) | 11.1                | 9.94                      | 26.3                    | 4.7                         | 3.8                        |  |
| 16 40        | 0.00000 -Référence(s) | 12.9                | 8.07                      | 27.8                    | 5.0                         | 4.9                        |  |
| Moy.pond.    | 0.00000 -Référence(s) | 12.0                | 9.00                      | 27.0                    | 4.8                         | 4.6                        |  |
| 17 40        | 911.54850             | 10.7                | 10.20                     | 27.0                    | 5.0                         | 2.5                        |  |
| 16 40        | 911.54850             | 13.0                | 8.50                      | 28.7                    | 5.0                         | 4.5                        |  |
| Moy.pond.    | 911.54850             | 11.9                | 9.35                      | 27.8                    | 5.0                         | 4.0                        |  |
| 17 40        | 911.54868             | 11.4                | 10.38                     | 25.8                    | 5.0                         | 4.0                        |  |
| 16 40        | 911.54868             | 13.1                | 8.83                      | 28.0                    | 5.2                         | 4.6                        |  |
| Moy.pond.    | 911.54868             | 12.3                | 9.60                      | 26.9                    | 5.1                         | 4.5                        |  |
| 17 40        | 911.54881             | 10.4                | 9.50                      | 27.0                    | 4.3                         | 3.0                        |  |
| 16 40        | 911.54881             | 12.5                | 8.78                      | 27.3                    | 5.1                         | 4.6                        |  |
| Moy.pond.    | 911.54881             | 11.4                | 9.14                      | 27.2                    | 4.7                         | 4.2                        |  |
| 17 40        | 911.54886             | 11.2                | 10.65                     | 25.0                    | 4.7                         | 3.0                        |  |
| 16 40        | 911.54886             | 13.2                | 9.48                      | 27.5                    | 5.1                         | 5.1                        |  |
| Moy.pond.    | 911.54886             | 12.2                | 10.06                     | 26.3                    | 4.9                         | 4.5                        |  |
| 17 40        | 911.54980             | 10.9                | 9.46                      | 26.3                    | 4.5                         | 4.0                        |  |
| 16 40        | 911.54980             | 12.4                | 8.61                      | 28.0                    | 4.6                         | 5.6                        |  |
| Moy.pond.    | 911.54980             | 11.6                | 9.03                      | 27.2                    | 4.5                         | 5.2                        |  |
| 17 40        | 911.54982             | 10.9                | 10.35                     | 26.5                    | 4.6                         | 3.5                        |  |
| 16 40        | 911.54982             | 13.2                | 9.15                      | 27.5                    | 5.2                         | 4.6                        |  |
| Moy.pond.    | 911.54982             | 12.0                | 9.75                      | 27.0                    | 4.9                         | 4.3                        |  |
| 17 40        | Nbr. d'obs.           | 6                   | 6                         | 6                       | 6                           | 2                          |  |
| 16 40        | Nbr. d'obs.           | 6                   | 6                         | 6                       | 6                           | 6                          |  |
| Total        | Nbr. d'obs.           | 12                  | 12                        | 12                      | 12                          | 8                          |  |
| 17 40        | Nbr. d.lieux          | 6                   | 6                         | 6                       | 6                           | 2                          |  |
| 16 40        | Nbr. d.lieux          | 6                   | 6                         | 6                       | 6                           | 6                          |  |
| Total        | Nbr. d.lieux          | 12                  | 12                        | 12                      | 12                          | 8                          |  |

## Récapitulatif des résultats 2016 - 2017

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| No<br>Exper. | Nom<br>Variété        | Oïdium<br>nat.<br>note | Oïdium<br>artif.<br>note | Rouille j.<br>nat.<br>note | Rouille j.<br>artif.<br>note | Rouille b.<br>nat.<br>note |
|--------------|-----------------------|------------------------|--------------------------|----------------------------|------------------------------|----------------------------|
| 17 40        | -911.54087 TRIALDO    | 1.3                    | 1.3                      | 1.0                        | 1.0                          | 1.0                        |
| 16 40        | -911.54087 TRIALDO    | 2.0                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | -911.54087 TRIALDO    | 1.5                    | 1.3                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | -911.54502 LAROSSA    | 1.1                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | -911.54502 LAROSSA    | 1.0                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | -911.54502 LAROSSA    | 1.1                    | 1.0                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | 0.00000 -Référence(s) | 1.2                    | 1.2                      | 1.0                        | 1.0                          | 1.0                        |
| 16 40        | 0.00000 -Référence(s) | 1.5                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | 0.00000 -Référence(s) | 1.3                    | 1.2                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | 911.54850             | 1.1                    | 1.0                      | 1.0                        | 1.0                          | 1.0                        |
| 16 40        | 911.54850             | 1.0                    |                          | 2.0                        | 1.3                          |                            |
| Moy.pond.    | 911.54850             | 1.1                    | 1.0                      | 2.0                        | 1.2                          | 1.0                        |
| 17 40        | 911.54868             | 1.2                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | 911.54868             | 1.0                    |                          | 1.2                        | 1.0                          |                            |
| Moy.pond.    | 911.54868             | 1.1                    | 1.0                      | 1.2                        | 1.0                          | 1.0                        |
| 17 40        | 911.54881             | 1.5                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | 911.54881             | 1.0                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | 911.54881             | 1.4                    | 1.0                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | 911.54886             | 1.1                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | 911.54886             | 1.3                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | 911.54886             | 1.1                    | 1.0                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | 911.54980             | 1.1                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | 911.54980             | 1.7                    |                          | 1.0                        | 1.3                          |                            |
| Moy.pond.    | 911.54980             | 1.2                    | 1.0                      | 1.0                        | 1.2                          | 1.0                        |
| 17 40        | 911.54982             | 1.4                    | 1.0                      |                            | 1.0                          | 1.0                        |
| 16 40        | 911.54982             | 1.3                    |                          | 1.0                        | 1.0                          |                            |
| Moy.pond.    | 911.54982             | 1.4                    | 1.0                      | 1.0                        | 1.0                          | 1.0                        |
| 17 40        | Nbr. d'obs.           | 12                     | 3                        |                            | 3                            | 3                          |
| 16 40        | Nbr. d'obs.           | 3                      |                          | 9                          | 3                            |                            |
| Total        | Nbr. d'obs.           | 15                     | 3                        | 9                          | 6                            | 3                          |
| 17 40        | Nbr. d.lieux          | 4                      | 1                        |                            | 1                            | 1                          |
| 16 40        | Nbr. d.lieux          | 1                      |                          | 3                          | 1                            |                            |
| Total        | Nbr. d.lieux          | 5                      | 1                        | 3                          | 2                            | 1                          |

## Récapitulatif des résultats 2016 - 2017

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|           | No<br>Exper. | Nom<br>Variété | Sept. Nod<br>feuille nat.<br>note | Sept. Nod<br>feuille art<br>indice | Sept. Nod<br>épi art.<br>note | Sept. Trit<br>art.<br>indice | Fus épi<br>artif.<br>note | Hiver<br>nage<br>note |
|-----------|--------------|----------------|-----------------------------------|------------------------------------|-------------------------------|------------------------------|---------------------------|-----------------------|
| 17 40     | -911.54087   | TRIALDO        | 2.6                               | 91                                 | 68                            |                              | 2.7                       | 1.0                   |
| 16 40     | -911.54087   | TRIALDO        | 4.0                               | 104                                | 77                            | 56                           | 5.0                       | 1.0                   |
| Moy.pond. | -911.54087   | TRIALDO        | 3.1                               | 98                                 | 73                            | 56                           | 3.9                       | 1.0                   |
| 17 40     | -911.54502   | LAROSSA        | 2.1                               | 91                                 | 148                           |                              | 1.3                       | 1.0                   |
| 16 40     | -911.54502   | LAROSSA        | 3.8                               | 93                                 | 81                            | 65                           | 5.3                       | 1.1                   |
| Moy.pond. | -911.54502   | LAROSSA        | 2.8                               | 92                                 | 115                           | 65                           | 3.3                       | 1.1                   |
| 17 40     | 0.00000      | -Référence(s)  | 2.3                               | 91                                 | 108                           |                              | 2.0                       | 1.0                   |
| 16 40     | 0.00000      | -Référence(s)  | 3.9                               | 99                                 | 79                            | 61                           | 5.2                       | 1.0                   |
| Moy.pond. | 0.00000      | -Référence(s)  | 3.0                               | 95                                 | 94                            | 61                           | 3.6                       | 1.0                   |
| 17 40     | 911.54850    |                | 2.2                               | 39                                 | 102                           |                              | 1.7                       | 1.2                   |
| 16 40     | 911.54850    |                | 3.3                               | 49                                 | 75                            | 52                           | 6.0                       | 1.0                   |
| Moy.pond. | 911.54850    |                | 2.7                               | 44                                 | 89                            | 52                           | 3.9                       | 1.1                   |
| 17 40     | 911.54868    |                | 2.2                               | 104                                | 91                            |                              | 1.0                       | 1.0                   |
| 16 40     | 911.54868    |                | 3.5                               | 104                                | 93                            | 78                           | 5.0                       | 1.0                   |
| Moy.pond. | 911.54868    |                | 2.7                               | 104                                | 92                            | 78                           | 3.0                       | 1.0                   |
| 17 40     | 911.54881    |                | 2.2                               | 91                                 | 79                            |                              | 1.3                       | 1.2                   |
| 16 40     | 911.54881    |                | 3.7                               | 60                                 | 81                            | 56                           | 5.5                       | 1.0                   |
| Moy.pond. | 911.54881    |                | 2.8                               | 76                                 | 80                            | 56                           | 3.4                       | 1.1                   |
| 17 40     | 911.54886    |                | 2.0                               | 65                                 | 68                            |                              | 2.7                       | 1.3                   |
| 16 40     | 911.54886    |                | 3.8                               | 60                                 | 65                            | 65                           | 5.0                       | 1.0                   |
| Moy.pond. | 911.54886    |                | 2.7                               | 63                                 | 67                            | 65                           | 3.9                       | 1.1                   |
| 17 40     | 911.54980    |                | 2.3                               | 104                                | 102                           |                              | 1.0                       | 1.5                   |
| 16 40     | 911.54980    |                | 4.2                               | 60                                 | 84                            | 74                           | 4.0                       | 1.3                   |
| Moy.pond. | 911.54980    |                | 3.1                               | 82                                 | 93                            | 74                           | 2.5                       | 1.3                   |
| 17 40     | 911.54982    |                | 2.3                               | 91                                 | 79                            |                              | 1.7                       | 1.0                   |
| 16 40     | 911.54982    |                | 3.8                               | 82                                 | 63                            | 46                           | 4.0                       | 1.0                   |
| Moy.pond. | 911.54982    |                | 2.9                               | 87                                 | 71                            | 46                           | 2.9                       | 1.0                   |
| 17 40     |              | Nbr. d'obs.    | 9                                 | 3                                  | 3                             |                              | 3                         | 6                     |
| 16 40     |              | Nbr. d'obs.    | 6                                 | 3                                  | 3                             | 3                            | 3                         | 12                    |
| Total     |              | Nbr. d'obs.    | 15                                | 6                                  | 6                             | 3                            | 6                         | 18                    |
| 17 40     |              | Nbr. d.lieux   | 3                                 | 1                                  | 1                             |                              | 1                         | 2                     |
| 16 40     |              | Nbr. d.lieux   | 2                                 | 1                                  | 1                             | 1                            | 1                         | 4                     |
| Total     |              | Nbr. d.lieux   | 5                                 | 2                                  | 2                             | 1                            | 2                         | 6                     |

**Résultats annuels  
Triticale d'automne**

**Einjährige Ergebnisse  
Wintertriticale**

**2017**

## Lieux d'essais et variétés testées

### Présentation des essais

#### Versuchsanlage

| No essai      | Lieu           | Altitude  | Date de semis | Date de récolte |
|---------------|----------------|-----------|---------------|-----------------|
| Versuchs-nr.  | Anbauort       | Höhe ü.M. | Saatdatum     | Erntedatum      |
| WT 17 1260 40 | Changins VD    | 430 m     | 12.10.2016    | 12.07.2017      |
| WT 17 1376 40 | Goumoens VD    | 610 m     | 20.10.2016    | 14.07.2017      |
| WT 17 1510 40 | Moudon VD      | 530 m     | 20.10.2016    | 17.07.2017      |
| WT 17 1567 40 | Delley FR      | 470 m     | 20.10.2016    | 17.07.2017      |
| WT 17 3428 40 | Utzenstorf BE  | 490 m     | 24.10.2016    | 20.07.2017      |
| WT 17 8566 40 | Ellighausen TG | 525 m     | 02.11.2016    | 19.07.2017      |

### Présentation des variétés

#### Prüfsorten

| No semis | No var.   | Nom       | Obtenteur           | Statut |          |
|----------|-----------|-----------|---------------------|--------|----------|
| SaatNr.  | Verf.-Nr  | Name      | Züchter             | Status |          |
| 1        | 911.54087 | Trialdo   | Agroscope-DSP       | CH     | Standard |
| 2        | 911.54502 | Larossa   | Agroscope-DSP       | CH     | Standard |
| 3        | 911.54850 |           | Agroscope-DSP       | CH     | HV1      |
| 4        | 911.54868 |           | Agroscope-DSP       | CH     | HV2      |
| 5        | 911.54881 |           | Agroscope-DSP       | CH     | w        |
| 6        | 911.54886 |           | Agroscope-DSP       | CH     | w        |
| 7        | 911.54980 |           | Agroscope-DSP       | CH     | w        |
| 8        | 911.54982 |           | Agroscope-DSP       | CH     | w        |
| 9        | 991.59736 | GZPK.40.7 | Kunz, GZPK          | CH     | HV1      |
| 10       | 991.59737 | GZPK127.7 | Kunz, GZPK          | CH     | HV1      |
| 11       | 991.59738 | KWS FIDO  | KWS Momont          | FR     | LR1      |
| 12       | 991.59739 | CEDRICO   | Syngenta-Lantmännen | DE     | LR1      |

## Résultats et indice pour 2017

| Critères                            | Standards |           | Moy.<br>standard | HV1       | HV2       | vv        | vv        |
|-------------------------------------|-----------|-----------|------------------|-----------|-----------|-----------|-----------|
|                                     | Trialdo   | Larossa   |                  |           |           |           |           |
|                                     | 991.59658 | 911.54087 |                  | 911.54850 | 911.54868 | 911.54881 | 911.54886 |
| <b>Caractéristiques principales</b> |           |           |                  |           |           |           |           |
| Rendement absolu, dt/ha             | 86.6      | 91.7      | 89.2             | 93.3      | 90.2      | 91.2      | 95.8      |
| Rendement relatif, %                | 97.1      | 102.9     | 100.0            | 104.7     | 101.2     | 102.3     | 107.5     |
| Résistance à la verse, note         | 2.6       | 2.2       | 2.4              | 3.3       | 3.3       | 1.6       | 2.3       |
| Epiaison, +/- jours rap. std        | 0.4       | -0.4      | 0.0              | 2.1       | 2.6       | 2.6       | 3.1       |
| Protéine, %                         | 9.2       | 10.7      | 9.9              | 10.2      | 10.4      | 9.5       | 10.7      |
| Poids à l'hectolitre, kg            | 70.3      | 68.1      | 69.2             | 69.8      | 70.4      | 67.7      | 67.3      |
| Résistance à la rouille jaune, note | 1.0       | 1.0       | 1.0              | 1.0       | 1.0       | 1.0       | 1.0       |
| Résistance à la rouille brune, note | 1.0       | 1.0       | 1.0              | 1.0       | 1.0       | 1.0       | 1.0       |
| Sept. nodorum sur feuille, indice   | 91        | 91        | 91               | 39        | 104       | 91        | 65        |
| Sept. nodorum sur épi, indice       | 68        | 148       | 108              | 102       | 91        | 79        | 68        |
| Fusariose sur épi, note             | 2.7       | 1.3       | 2.0              | 1.7       | 1.0       | 1.3       | 2.7       |
| <b>Caract. circonstancielle</b>     |           |           |                  |           |           |           |           |
| Germination sur pied, note          |           |           |                  |           |           |           |           |
| Hivernage, note                     | 1.0       | 1.0       | 1.0              | 1.2       | 1.0       | 1.2       | 1.3       |
| Oïdium, note                        | 1.3       | 1.1       | 1.2              | 1.1       | 1.2       | 1.5       | 1.1       |
| Sept. nodorum sur feuille, note     | 2.6       | 2.1       | 2.4              | 2.2       | 2.2       | 2.2       | 2.0       |
| <b>Autres observations</b>          |           |           |                  |           |           |           |           |
| Hauteur des plantes, cm             | 114.3     | 119.1     | 116.7            | 122.4     | 116.7     | 117.2     | 120.9     |
| Poids de 1000 grains, g             | 42.1      | 43.1      | 42.6             | 46.9      | 43.8      | 42.0      | 42.3      |
| Bonus                               | 3         | 1         |                  | 2         | 3         | 2         | 3         |
| Malus                               |           | 1         |                  |           |           |           | 1         |
| Indice total lors du test           | 100.1     | 102.9     | 100.0            | 106.7     | 104.2     | 104.3     | 109.5     |
| Indice limite d'admission           |           |           |                  | > 103     | > 103     | > 103     | > 103     |

 = éliminatoire

## Résultats et indice pour 2017

| Critères                            | vv              | vv              | HV1<br>GZPK.40.7 | HV1<br>GZPK127.7 | LR1<br>KWS Fido | LR1<br>Cedrico  | Moy.<br>standard |
|-------------------------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|
|                                     | 911.54980       | 911.54982       | 991.59736        | 991.59737        | 991.59738       | 991.59739       |                  |
| <b>Caractéristiques principales</b> |                 |                 |                  |                  |                 |                 |                  |
| Rendement absolu, dt/ha             | 86.7            | 94.0            | 85.5             | 85.3             | 94.3            | 92.2            | <b>89.2</b>      |
| Rendement relatif, %                | 97.3            | 105.4           | 95.9             | 95.7             | 105.8           | 103.4           | <b>100.0</b>     |
| Résistance à la verse, note         | 2.4             | 2.0             | 2.3              | 2.9              | 2.9             | 2.4             | <b>2.4</b>       |
| Epiaison, +/- jours rap. std        | 3.9             | 1.4             | -0.7             | 1.8              | -0.3            | 4.0             | <b>0.0</b>       |
| Protéine, %                         | 9.5             | 10.4            | 9.8              | 9.2              | 9.2             | 8.7             | <b>9.9</b>       |
| Poids à l'hectolitre, kg            | 65.4            | 68.7            | 70.4             | 69.0             | 71.9            | 71.3            | <b>69.2</b>      |
| Résistance à la rouille jaune, note | 1.0             | 1.0             | 1.3              | 1.0              | 2.0             | 2.0             | <b>1.0</b>       |
| Résistance à la rouille brune, note | 1.0             | 1.0             | 2.3              | 1.0              | 1.0             | 1.0             | <b>1.0</b>       |
| Sept. nodorum sur feuille, indice   | 104             | 91              | 104              | 104              | 117             | 78              | <b>91</b>        |
| Sept. nodorum sur épi, indice       | 102             | 79              | 204              | 91               | 79              | 79              | <b>108</b>       |
| Fusariose sur épi, note             | 1.0             | 1.7             | 2.0              | 1.3              | 1.0             | 2.0             | <b>2.0</b>       |
| <b>Caract. circonstancielle</b>     |                 |                 |                  |                  |                 |                 |                  |
| Germination sur pied, note          |                 |                 |                  |                  |                 |                 |                  |
| Hivernage, note                     | 1.5             | 1.0             | 1.2              | 1.2              | 1.0             | 1.0             | <b>1.0</b>       |
| Oïdium, note                        | 1.1             | 1.4             | 1.0              | 1.3              | 1.1             | 1.3             | <b>1.2</b>       |
| Sept. nodorum sur feuille, note     | 2.3             | 2.3             | 2.3              | 2.7              | 2.0             | 2.1             | <b>2.4</b>       |
| <b>Autres observations</b>          |                 |                 |                  |                  |                 |                 |                  |
| Hauteur des plantes, cm             | 118.1           | 120.8           | 117.3            | 120.5            | 126.4           | 113.9           | <b>116.7</b>     |
| Poids de 1000 grains, g             | 41.2            | 42.5            | 44.1             | 38.6             | 39.7            | 37.8            | <b>42.6</b>      |
| <b>Bonus</b>                        | <b>1</b>        | <b>2</b>        | <b>2</b>         | <b>2</b>         | <b>3</b>        | <b>3</b>        |                  |
| <b>Malus</b>                        | <b>2</b>        |                 | <b>1</b>         |                  | <b>1</b>        | <b>2</b>        |                  |
| Indice total lors du test           | <b>96.3</b>     | <b>107.4</b>    | <b>96.9</b>      | <b>97.7</b>      | <b>107.8</b>    | <b>104.4</b>    | <b>100.0</b>     |
| Indice limite d'admission           | <b>&gt; 103</b> | <b>&gt; 103</b> | <b>&gt; 103</b>  | <b>&gt; 103</b>  | <b>&gt; 103</b> | <b>&gt; 103</b> |                  |

 = éliminatoire

## Récapitulation des résultats 2017

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| No<br>Exper.       | Nom<br>Variété |     | Rendt<br>absolu<br>q/ha | Rendt<br>rel. St.<br>% | Rendt<br>relatif<br>trié | Verse<br>précoce<br>note | Verse<br>moy.<br>note | Verse<br>tardive<br>note | Verse<br>moyenne<br>note |
|--------------------|----------------|-----|-------------------------|------------------------|--------------------------|--------------------------|-----------------------|--------------------------|--------------------------|
| -911.54087         | TRIALDO        | S   | 86.6                    | 97.1                   | 98.1                     | 2.9                      | 3.1                   | 2.6                      | 2.5                      |
| -911.54502         | LAROSSA        | S   | 91.7                    | 102.9                  | 101.9                    | 2.0                      | 2.1                   | 2.2                      | 1.9                      |
| 911.54850          |                | HV1 | 93.3                    | 104.7                  | 109.0                    | 1.9                      | 2.0                   | 3.3                      | 2.4                      |
| 911.54868          |                | HV2 | 90.2                    | 101.2                  | 104.4                    | 1.7                      | 3.0                   | 3.3                      | 2.6                      |
| 911.54881          |                | w   | 91.2                    | 102.3                  | 103.7                    | 1.1                      | 1.1                   | 1.6                      | 1.3                      |
| 911.54886          |                | w   | 95.8                    | 107.5                  | 104.1                    | 1.3                      | 1.3                   | 2.3                      | 1.6                      |
| 911.54980          |                | w   | 86.7                    | 97.3                   | 89.2                     | 1.8                      | 1.8                   | 2.4                      | 1.9                      |
| 911.54982          |                | w   | 94.0                    | 105.4                  | 107.0                    | 1.8                      | 1.8                   | 2.0                      | 1.7                      |
| 991.59736          | GZPK.40.7      | HV1 | 85.5                    | 95.9                   | 96.3                     | 2.3                      | 2.3                   | 2.3                      | 2.1                      |
| 991.59737          | GZPK127.7      | HV1 | 85.3                    | 95.7                   | 95.0                     | 1.9                      | 2.4                   | 2.9                      | 2.4                      |
| 991.59738          | KWS FIDO       | LR1 | 94.3                    | 105.8                  | 104.3                    | 2.1                      | 2.8                   | 2.9                      | 2.4                      |
| 991.59739          | CEDRICO        | LR1 | 92.2                    | 103.4                  | 100.1                    | 1.9                      | 2.1                   | 2.4                      | 2.0                      |
| <b>Standards</b>   |                |     | <b>89.2</b>             | <b>100.0</b>           | <b>100.0</b>             | <b>2.5</b>               | <b>2.6</b>            | <b>2.4</b>               | <b>2.2</b>               |
| Moyenne d'essai    |                |     | <b>90.6</b>             | <b>100.0</b>           | <b>101.1</b>             | <b>1.9</b>               | <b>2.2</b>            | <b>2.5</b>               | <b>2.1</b>               |
| CV [%]             |                |     | 7.5                     |                        |                          | 43.2                     | 47.2                  | 45.2                     | 37.5                     |
| PPDS (5%)          |                |     | 4.5                     |                        |                          | 0.8                      | 1.0                   | 0.9                      |                          |
| PPDS (1%)          |                |     | 5.9                     |                        |                          | 1.0                      | 1.3                   |                          |                          |
| Ecart-type d'essai |                |     | 6.8                     |                        |                          | 0.8                      | 1.0                   | 1.1                      | 0.8                      |
| DL de l'erreur     |                |     | 128.0                   |                        |                          | 64.0                     | 64.0                  | 86.0                     | 33.0                     |
| Nbre obs.          |                |     | 18                      |                        |                          | 9                        | 9                     | 12                       | 4                        |
| Nbre lieux         |                |     | 6                       |                        |                          | 3                        | 3                     | 4                        | 4                        |

## Récapitulation des résultats 2017

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| No<br>Exper.       | Nom<br>Variété | Hauteur<br>plantes<br>cm | Epiaison<br>rap. tém.<br>jours | Rend<br>au triage<br>% | Poids de<br>1000 grains<br>g | Poids à l'<br>hectolitre<br>kg |
|--------------------|----------------|--------------------------|--------------------------------|------------------------|------------------------------|--------------------------------|
| -911.54087         | TRIALDO        | 114.3                    | 0.4                            | 89.6                   | 42.1                         | 70.3                           |
| -911.54502         | LAROSSA        | 119.1                    | -0.4                           | 87.9                   | 43.1                         | 68.1                           |
| 911.54850          |                | 122.4                    | 2.1                            | 92.4                   | 46.9                         | 69.8                           |
| 911.54868          |                | 116.7                    | 2.6                            | 91.6                   | 43.8                         | 70.4                           |
| 911.54881          |                | 117.2                    | 2.6                            | 90.0                   | 42.0                         | 67.7                           |
| 911.54886          |                | 120.9                    | 3.1                            | 86.0                   | 42.3                         | 67.3                           |
| 911.54980          |                | 118.1                    | 3.9                            | 81.4                   | 41.2                         | 65.4                           |
| 911.54982          |                | 120.8                    | 1.4                            | 90.1                   | 42.5                         | 68.7                           |
| 991.59736          | GZPK.40.7      | 117.3                    | -0.7                           | 89.1                   | 44.1                         | 70.4                           |
| 991.59737          | GZPK127.7      | 120.5                    | 1.8                            | 88.1                   | 38.6                         | 69.0                           |
| 991.59738          | KWS FIDO       | 126.4                    | -0.3                           | 87.5                   | 39.7                         | 71.9                           |
| 991.59739          | CEDRICO        | 113.9                    | 4.0                            | 85.9                   | 37.8                         | 71.3                           |
| <b>Standards</b>   |                | <b>116.7</b>             | <b>0.0</b>                     | <b>88.8</b>            | <b>42.6</b>                  | <b>69.2</b>                    |
| Moyenne d'essai    |                | <b>119.0</b>             | <b>1.7</b>                     | <b>88.3</b>            | <b>42.0</b>                  | <b>69.2</b>                    |
| CV [%]             |                | 3.3                      | 104.6                          | 8.4                    | 3.2                          | 1.2                            |
| PPDS (5%)          |                | 2.6                      | 2.3                            |                        | 1.6                          | 0.6                            |
| PPDS (1%)          |                | 3.4                      | 3.1                            |                        | 2.1                          | 0.7                            |
| Ecart-type d'essai |                | 3.9                      | 1.8                            | 7.4                    | 1.3                          | 0.8                            |
| DL de l'erreur     |                | 130.0                    | 44.0                           | 55.0                   | 55.0                         | 128.0                          |
| Nbre obs.          |                | 18                       | 5                              | 6                      | 6                            | 18                             |
| Nbre lieux         |                | 6                        | 5                              | 6                      | 6                            | 6                              |

## Récapitulation des résultats 2017

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| No<br>Exper.       | Nom<br>Variété | Protéine<br>M.S. NIR | Rendt<br>protéine<br>q/ha | Dureté<br>du grain<br>NIT % | Protéine<br>par grain<br>mg | Aspect<br>du grain<br>note |
|--------------------|----------------|----------------------|---------------------------|-----------------------------|-----------------------------|----------------------------|
| -911.54087         | TRIALDO        | 10.6                 | 9.2                       | 27                          | 4.4                         | 3.5                        |
| -911.54502         | LAROSSA        | 11.5                 | 10.7                      | 26                          | 5.0                         | 4.0                        |
| 911.54850          |                | 10.7                 | 10.2                      | 27                          | 5.0                         | 2.5                        |
| 911.54868          |                | 11.4                 | 10.4                      | 26                          | 5.0                         | 4.0                        |
| 911.54881          |                | 10.4                 | 9.5                       | 27                          | 4.3                         | 3.0                        |
| 911.54886          |                | 11.2                 | 10.7                      | 25                          | 4.7                         | 3.0                        |
| 911.54980          |                | 10.9                 | 9.5                       | 26                          | 4.5                         | 4.0                        |
| 911.54982          |                | 10.9                 | 10.4                      | 27                          | 4.6                         | 3.5                        |
| 991.59736          | GZPK.40.7      | 11.4                 | 9.8                       | 24                          | 5.0                         | 3.0                        |
| 991.59737          | GZPK127.7      | 10.8                 | 9.2                       | 28                          | 4.2                         | 4.0                        |
| 991.59738          | KWS FIDO       | 9.6                  | 9.2                       | 28                          | 3.8                         | 4.5                        |
| 991.59739          | CEDRICO        | 9.4                  | 8.7                       | 27                          | 3.5                         | 4.5                        |
| <b>Standards</b>   |                | <b>11.1</b>          | <b>9.9</b>                | <b>26.3</b>                 | <b>4.7</b>                  | <b>3.8</b>                 |
| Moyenne d'essai    |                | <b>10.7</b>          | <b>9.8</b>                | <b>26.5</b>                 | <b>4.5</b>                  | <b>3.6</b>                 |
| CV [%]             |                | 4.3                  | 6.1                       | 3.8                         | 5.3                         | 15.5                       |
| PPDS (5%)          |                | 0.5                  | 0.7                       | 1.2                         | 0.3                         |                            |
| PPDS (1%)          |                | 0.7                  | 0.9                       | 1.5                         | 0.4                         |                            |
| Ecart-type d'essai |                | 0.5                  | 0.6                       | 1.0                         | 0.2                         | 0.6                        |
| DL de l'erreur     |                | 55.0                 | 55.0                      | 55.0                        | 55.0                        | 11.0                       |
| Nbre obs.          |                | 6                    | 6                         | 6                           | 6                           | 2                          |
| Nbre lieux         |                | 6                    | 6                         | 6                           | 6                           | 2                          |

## Récapitulation des résultats 2017

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| No<br>Exper.       | Nom<br>Variété | Oïdium<br>natu.<br>note | Rouille<br>jaune<br>art. | Rouille<br>brune nat.<br>note | Sept. nod<br>natu. Feuille<br>note | Sept. nod<br>natu. Épi<br>note |
|--------------------|----------------|-------------------------|--------------------------|-------------------------------|------------------------------------|--------------------------------|
| -911.54087         | TRIALDO        | 1.3                     | 1.0                      | 1.0                           | 2.6                                | 1.3                            |
| -911.54502         | LAROSSA        | 1.1                     | 1.0                      | 1.0                           | 2.1                                | 1.3                            |
| 911.54850          |                | 1.1                     | 1.0                      | 1.0                           | 2.2                                | 1.0                            |
| 911.54868          |                | 1.2                     | 1.0                      | 1.0                           | 2.2                                | 1.7                            |
| 911.54881          |                | 1.5                     | 1.0                      | 1.0                           | 2.2                                | 1.3                            |
| 911.54886          |                | 1.1                     | 1.0                      | 1.0                           | 2.0                                | 1.0                            |
| 911.54980          |                | 1.1                     | 1.0                      | 1.0                           | 2.3                                | 1.0                            |
| 911.54982          |                | 1.4                     | 1.0                      | 1.0                           | 2.3                                | 1.7                            |
| 991.59736          | GZPK.40.7      | 1.0                     | 1.3                      | 2.3                           | 2.3                                | 2.0                            |
| 991.59737          | GZPK127.7      | 1.3                     | 1.0                      | 1.0                           | 2.7                                | 1.7                            |
| 991.59738          | KWS FIDO       | 1.1                     | 2.0                      | 1.0                           | 2.0                                | 1.0                            |
| 991.59739          | CEDRICO        | 1.3                     | 2.0                      | 1.0                           | 2.1                                | 1.7                            |
| <b>Standards</b>   |                | <b>1.2</b>              | <b>1.0</b>               | <b>1.0</b>                    | <b>2.4</b>                         | <b>1.3</b>                     |
| Moyenne d'essai    |                | <b>1.2</b>              | <b>1.2</b>               | <b>1.1</b>                    | <b>2.3</b>                         | <b>1.4</b>                     |
| CV [%]             |                | 35.2                    |                          | 30.0                          | 16.7                               | 43.3                           |
| PPDS (5%)          |                |                         |                          | 0.6                           | 0.4                                |                                |
| PPDS (1%)          |                |                         |                          | 0.8                           | 0.5                                |                                |
| Ecart-type d'essai |                | 0.4                     |                          | 0.3                           | 0.4                                | 0.6                            |
| DL de l'erreur     |                | 88.0                    |                          | 22.0                          | 66.0                               | 22.0                           |
| Nbre obs.          |                | 12                      | 3                        | 3                             | 9                                  | 3                              |
| Nbre lieux         |                | 4                       | 1                        | 1                             | 3                                  | 1                              |

## Récapitulation des résultats 2017

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| No<br>Exper.       | Nom<br>Variété | Sept. nod<br>feuille art.<br>indice | Sept. nod<br>épi art.<br>indice | Fusariose<br>art. | Hivernage<br>note |
|--------------------|----------------|-------------------------------------|---------------------------------|-------------------|-------------------|
| -911.54087         | TRIALDO        | 91                                  | 68                              | 2.7               | 1.0               |
| -911.54502         | LAROSSA        | 91                                  | 148                             | 1.3               | 1.0               |
| 911.54850          |                | 39                                  | 102                             | 1.7               | 1.2               |
| 911.54868          |                | 104                                 | 91                              | 1.0               | 1.0               |
| 911.54881          |                | 91                                  | 79                              | 1.3               | 1.2               |
| 911.54886          |                | 65                                  | 68                              | 2.7               | 1.3               |
| 911.54980          |                | 104                                 | 102                             | 1.0               | 1.5               |
| 911.54982          |                | 91                                  | 79                              | 1.7               | 1.0               |
| 991.59736          | GZPK.40.7      | 104                                 | 204                             | 2.0               | 1.2               |
| 991.59737          | GZPK127.7      | 104                                 | 91                              | 1.3               | 1.2               |
| 991.59738          | KWS FIDO       | 117                                 | 79                              | 1.0               | 1.0               |
| 991.59739          | CEDRICO        | 78                                  | 79                              | 2.0               | 1.0               |
| <b>Standards</b>   |                | <b>91</b>                           | <b>108</b>                      | <b>2</b>          | <b>1.0</b>        |
| Moyenne d'essai    |                | <b>90</b>                           | <b>99</b>                       | <b>2</b>          | <b>1.1</b>        |
| CV [%]             |                |                                     |                                 |                   | 32.7              |
| PPDS (5%)          |                |                                     |                                 |                   |                   |
| PPDS (1%)          |                |                                     |                                 |                   |                   |
| Ecart-type d'essai |                |                                     |                                 |                   | 0.4               |
| DL de l'erreur     |                |                                     |                                 |                   | 42.0              |
| Nbre obs.          |                | 3                                   | 3                               | 3                 | 6                 |
| Nbre lieux         |                | 1                                   | 1                               | 1                 | 2                 |

# Résultats par lieux

## Ergebnisse pro Standorte

2017

WT 17000040.z3  
Rdt. absolu dt/ha, widas 21  
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| Procédés<br>Série   | Moyenne   | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 86.6 --   | 73.8 ----    | 111.6 ----       | 86.5 ----             | 85.9 -         | 90.4 -             | 71.5 -              |
| -911.54502 LAROSSA  | 91.7 ---- | 75.2 ----    | 106.9 --         | 85.1 ----             | 95.6 ----      | 100.4 ----         | 86.9 ----           |
| 911.54850 .         | 93.3 ---- | 76.0 ----    | 108.5 --         | 89.0 ----             | 103.8 ----     | 103.6 ----         | 79.1 --             |
| 911.54868 .         | 90.2 ---- | 66.9 --      | 109.5 --         | 87.5 ----             | 91.7 --        | 105.2 ----         | 80.4 --             |
| 911.54881 .         | 91.2 ---- | 75.7 ----    | 108.3 --         | 81.8 -                | 93.4 ----      | 96.7 --            | 91.2 ----           |
| 911.54886 .         | 95.8 ---- | 77.2 ----    | 112.7 ----       | 83.0 --               | 102.6 ----     | 101.1 ----         | 98.3 ----           |
| 911.54980 .         | 86.7 --   | 77.1 ----    | 103.1 -          | 81.6 -                | 91.6 --        | 93.9 --            | 73.3 -              |
| 911.54982 .         | 94.0 ---- | 79.8 ----    | 114.4 ----       | 85.2 ----             | 92.5 --        | 98.3 ----          | 93.7 ----           |
| 991.59736 GZPK40.7  | 85.5 -    | 67.5 --      | 102.4 -          | 82.5 --               | 92.5 --        | 96.8 --            | 71.7 -              |
| 991.59737 GZPK127.7 | 85.3 -    | 65.6 -       | 104.8 --         | 81.4 -                | 91.3 --        | 92.2 --            | 76.6 --             |
| 991.59738 KWS       | 94.3 ---- | 65.4 -       | 120.9 ----       | 89.7 ----             | 93.1 ----      | 109.1 ----         | 87.6 ----           |
| 991.59739 CEDRICO   | 92.2 ---- | 80.2 ----    | 114.4 ----       | 82.9 --               | 95.2 ----      | 96.2 --            | 84.2 --             |
| Références          | 89.1 --   | 74.5 ----    | 109.2 --         | 85.8 ----             | 90.7 --        | 95.4 --            | 79.2 --             |
| Moyenne d'essai     | 90.6 ---- | 73.4 ----    | 109.8 ----       | 84.7 ----             | 94.1 ----      | 98.7 ----          | 82.9 ----           |
| CV [%]              | 7.5       | 8.5          | 6.6              | 7.0                   | 3.6            | 4.1                | 9.5                 |
| PPDS -5%            | 4.5       | 10.5         | ns               | ns                    | 5.7            | 6.9                | ns                  |
| PPDS -1%            | 5.9       | ns           | ns               | ns                    | 7.7            | 9.4                | ns                  |
| Ecart-type d'essai  | 6.8       | 6.2          | 7.3              | 5.9                   | 3.4            | 4.0                | 11.2                |
| DL de l'erreur      | 128.0     | 22.0         | 22.0             | 22.0                  | 22.0           | 20.0               | 20.0                |
| Nbr. d'obs.         | 18.0      | 3.0          | 3.0              | 3.0                   | 3.0            | 3.0                | 3.0                 |

WT 17000040.z3  
Rdt. relatif standards %, widas 22  
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| Procédés            | Moyenne    | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|------------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 97.0 --    | 99.1 ----    | 102.2 ----       | 100.9 ----            | 94.6 -         | 94.8 -             | 90.2 -              |
| -911.54502 LAROSSA  | 103.0 ---- | 100.9 ----   | 97.8 --          | 99.1 ----             | 105.4 ----     | 105.2 ----         | 109.8 ----          |
| 911.54850 .         | 104.7 ---- | 102.0 ----   | 99.4 --          | 103.7 ----            | 114.4 ----     | 108.6 ----         | 99.8 --             |
| 911.54868 .         | 100.8 ---- | 89.8 --      | 100.3 --         | 101.9 ----            | 101.1 --       | 110.2 ----         | 101.5 --            |
| 911.54881 .         | 102.6 ---- | 101.7 ----   | 99.2 --          | 95.3 -                | 102.9 ----     | 101.3 --           | 115.1 ----          |
| 911.54886 .         | 107.8 ---- | 103.6 ----   | 103.2 ----       | 96.7 --               | 113.1 ----     | 105.9 ----         | 124.2 ----          |
| 911.54980 .         | 97.5 --    | 103.4 ----   | 94.4 -           | 95.1 -                | 101.0 --       | 98.3 --            | 92.5 -              |
| 911.54982 .         | 105.7 ---- | 107.1 ----   | 104.8 ----       | 99.3 --               | 101.9 --       | 103.0 ----         | 118.3 ----          |
| 991.59736 GZPK40.7  | 95.7 -     | 90.5 --      | 93.7 -           | 96.1 --               | 101.9 --       | 101.4 --           | 90.6 -              |
| 991.59737 GZPK127.7 | 95.5 -     | 88.1 -       | 96.0 --          | 94.9 -                | 100.6 --       | 96.6 --            | 96.7 --             |
| 991.59738 KWS       | 105.1 ---- | 87.7 -       | 110.7 ----       | 104.5 ----            | 102.7 --       | 114.3 ----         | 110.6 ----          |
| 991.59739 CEDRICO   | 103.5 ---- | 107.7 ----   | 104.8 ----       | 96.6 --               | 104.9 ----     | 100.8 --           | 106.4 --            |
| Références          | 100.0 --   | 100.0 ----   | 100.0 --         | 100.0 ----            | 100.0 --       | 100.0 --           | 100.0 --            |
| Moyenne d'essai     | 101.6 ---- | 98.5 ----    | 100.5 ----       | 98.7 ----             | 103.7 ----     | 103.4 ----         | 104.6 ----          |
| CV [%]              | 5.8        |              |                  |                       |                |                    |                     |
| PPDS -5%            | 6.8        | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| PPDS -1%            | 9.1        | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 5.9        |              |                  |                       |                |                    |                     |
| DL de l'erreur      | 55         |              |                  |                       |                |                    |                     |
| Nbr. d'obs.         | 6          | 1            | 1                | 1                     | 1              | 1                  | 1                   |

WT 17000040.z3

Verse pr coce ( piaison), widas 45

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| Proc d s            | Moyenne   | 1260<br>Nyon | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 2.9 ----- | 1.0 -        | 1.0 -              | 6.7 -----           |
| -911.54502 LAROSSA  | 2.0 ----- | 1.0 -        | 1.0 -              | 4.0 -----           |
| 911.54850 .         | 1.9 ----- | 1.0 -        | 1.0 -              | 3.7 -----           |
| 911.54868 .         | 1.7 ----- | 1.0 -        | 1.0 -              | 3.0 -----           |
| 911.54881 .         | 1.1 -     | 1.0 -        | 1.0 -              | 1.3 -               |
| 911.54886 .         | 1.3 --    | 1.0 -        | 1.0 -              | 2.0 --              |
| 911.54980 .         | 1.8 ----- | 1.0 -        | 1.0 -              | 3.3 -----           |
| 911.54982 .         | 1.8 ----- | 1.0 -        | 1.0 -              | 3.3 -----           |
| 991.59736 GZPK40.7  | 2.3 ----- | 1.0 -        | 1.0 -              | 5.0 -----           |
| 991.59737 GZPK127.7 | 1.9 ----- | 1.0 -        | 1.0 -              | 3.7 -----           |
| 991.59738 KWS       | 2.1 ----- | 1.0 -        | 1.0 -              | 4.3 -----           |
| 991.59739 CEDRICO   | 1.9 ----- | 1.0 -        | 1.0 -              | 3.7 -----           |
| R f rences          | 2.4 ----- | 1.0 -        | 1.0 -              | 5.3 -----           |
| Moyenne d'essai     | 1.9 ----- | 1.0 -        | 1.0 -              | 3.7 -----           |
| CV [%]              | 43.2      | 0            | 0.0                | 39.8                |
| PPDS -5%            | 0.8       | ns           | ns                 | 2.5                 |
| PPDS -1%            | 1         | ns           | ns                 | ns                  |
| Ecart-type d'essai  | 0.8       | 0            | 0                  | 1.5                 |
| DL de l'erreur      | 64        | 22           | 22                 | 20                  |
| Nbr. d'obs.         | 9         | 3            | 3                  | 3                   |

WT 17000040.z3

Verse\_interm diaire ( piaison +3semaines), widas 46

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| Proc d s            | Moyenne   | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 3.1 ----- | 1.3 --         | 1.0 -              | 7.0 -----           |
| -911.54502 LAROSSA  | 2.1 ----- | 1.0 -          | 1.0 -              | 4.3 -----           |
| 911.54850 .         | 2.0 ----- | 1.3 --         | 1.0 -              | 3.7 -----           |
| 911.54868 .         | 3.0 ----- | 3.0 -----      | 1.0 -              | 5.0 -----           |
| 911.54881 .         | 1.1 -     | 1.0 -          | 1.0 -              | 1.3 -               |
| 911.54886 .         | 1.3 --    | 1.0 -          | 1.0 -              | 2.0 --              |
| 911.54980 .         | 1.8 ----- | 1.0 -          | 1.0 -              | 3.3 -----           |
| 911.54982 .         | 1.8 ----- | 1.0 -          | 1.0 -              | 3.3 -----           |
| 991.59736 GZPK40.7  | 2.3 ----- | 1.0 -          | 1.0 -              | 5.0 -----           |
| 991.59737 GZPK127.7 | 2.4 ----- | 2.7 -----      | 1.0 -              | 3.7 -----           |
| 991.59738 KWS       | 2.8 ----- | 1.7 -----      | 1.0 -              | 5.7 -----           |
| 991.59739 CEDRICO   | 2.1 ----- | 1.0 -          | 1.0 -              | 4.3 -----           |
| R f rences          | 2.6 ----- | 1.2 -          | 1.0 -              | 5.7 -----           |
| Moyenne d'essai     | 2.2 ----- | 1.4 --         | 1.0 -              | 4.1 -----           |
| CV [%]              | 47.2      | 38.4           | 0.0                | 42.7                |
| PPDS -5%            | 1         | 0.9            | ns                 | 2.9                 |
| PPDS -1%            | 1.3       | 1.3            | ns                 | ns                  |
| Ecart-type d'essai  | 1         | 0.5            | 0                  | 1.7                 |
| DL de l'erreur      | 64        | 22             | 22                 | 20                  |
| Nbr. d'obs.         | 9         | 3              | 3                  | 3                   |

WT 17000040.z3  
 Verse tardive (réc.), widas 47  
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| Procédés            | Moyenne   | 1260<br>Nyon | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 2.6 ----  | 1.0 -        | 1.0 -          | 1.0 -              | 7.3 -----           |
| -911.54502 LAROSSA  | 2.2 ---   | 1.0 -        | 1.0 -          | 1.0 -              | 5.7 ----            |
| 911.54850 .         | 3.3 ----- | 1.0 -        | 3.7 -----      | 3.7 -----          | 5.0 ----            |
| 911.54868 .         | 3.3 ----- | 1.0 -        | 3.3 -----      | 2.7 ----           | 6.0 ----            |
| 911.54881 .         | 1.6 -     | 1.0 -        | 1.0 -          | 1.0 -              | 3.3 -               |
| 911.54886 .         | 2.3 ----  | 1.0 -        | 1.7 ---        | 2.7 -----          | 4.0 --              |
| 911.54980 .         | 2.4 ----  | 1.0 -        | 1.0 -          | 2.0 ---            | 5.7 ----            |
| 911.54982 .         | 2.0 ---   | 1.0 -        | 1.0 -          | 1.0 -              | 5.0 ----            |
| 991.59736 GZPK40.7  | 2.3 ---   | 1.0 -        | 1.0 -          | 1.0 -              | 6.0 -----           |
| 991.59737 GZPK127.7 | 2.9 ----- | 1.0 -        | 3.7 -----      | 1.0 -              | 6.0 ----            |
| 991.59738 KWS       | 2.9 ----- | 1.0 -        | 1.7 ---        | 2.3 -----          | 6.7 -----           |
| 991.59739 CEDRICO   | 2.4 ----  | 1.0 -        | 1.7 ---        | 1.0 -              | 6.0 -----           |
| Références          | 2.4 ----  | 1.0 -        | 1.0 -          | 1.0 -              | 6.5 -----           |
| Moyenne d'essai     | 2.5 ----- | 1.0 -        | 1.8 ---        | 1.7 ---            | 5.6 ----            |
| CV [%]              | 45.2      | 0            | 64.6           | 89.5               | 22.3                |
| PPDS -5%            | 0.9       | ns           | 2              | ns                 | 2.1                 |
| PPDS -1%            | ns        | ns           | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 1.1       | 0            | 1.2            | 1.5                | 1.2                 |
| DL de l'erreur      | 86        | 22           | 22             | 22                 | 20                  |
| Nbr. d'obs.         | 12        | 3            | 3              | 3                  | 3                   |

WT 17000040.z3  
 Verse moyenne, widas 48  
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| Procédés            | Moyenne   | 1260<br>Nyon | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 2.5 ----- | 1.0 -        | 1.2 -          | 1.0 -              | 7.0 -----           |
| -911.54502 LAROSSA  | 1.9 ----  | 1.0 -        | 1.0 -          | 1.0 -              | 4.7 ----            |
| 911.54850 .         | 2.4 ----- | 1.0 -        | 2.5 -----      | 1.9 -----          | 4.1 ----            |
| 911.54868 .         | 2.6 ----- | 1.0 -        | 3.2 -----      | 1.6 ----           | 4.7 ----            |
| 911.54881 .         | 1.3 -     | 1.0 -        | 1.0 -          | 1.0 -              | 2.0 -               |
| 911.54886 .         | 1.6 ---   | 1.0 -        | 1.3 --         | 1.6 -----          | 2.7 --              |
| 911.54980 .         | 1.9 ----  | 1.0 -        | 1.0 -          | 1.3 ---            | 4.1 ----            |
| 911.54982 .         | 1.7 ---   | 1.0 -        | 1.0 -          | 1.0 -              | 3.9 ---             |
| 991.59736 GZPK40.7  | 2.1 ----- | 1.0 -        | 1.0 -          | 1.0 -              | 5.3 -----           |
| 991.59737 GZPK127.7 | 2.4 ----- | 1.0 -        | 3.2 -----      | 1.0 -              | 4.4 ----            |
| 991.59738 KWS       | 2.4 ----- | 1.0 -        | 1.7 ---        | 1.4 -----          | 5.6 -----           |
| 991.59739 CEDRICO   | 2.0 ----  | 1.0 -        | 1.3 --         | 1.0 -              | 4.7 ----            |
| Références          | 2.2 ----- | 1.0 -        | 1.1 -          | 1.0 -              | 5.8 -----           |
| Moyenne d'essai     | 2.1 ----- | 1.0 -        | 1.6 ---        | 1.2 ---            | 4.4 ----            |
| CV [%]              | 37.5      |              |                |                    |                     |
| PPDS -5%            | ns        | ns           | ns             | ns                 | ns                  |
| PPDS -1%            | ns        | ns           | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 0.8       |              |                |                    |                     |
| DL de l'erreur      | 33        |              |                |                    |                     |
| Nbr. d'obs.         | 4         | 1            | 1              | 1                  | 1                   |

WT 17000040.z3  
Hauteur cm, widas 44  
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| Proc  d  s          | Moyenne    | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|------------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 114.3 -    | 108.3 -      | 116.7 --         | 111.7 -               | 115.0 -        | 117.3 --           | 116.7 ---           |
| -911.54502 LAROSSA  | 119.1 ---- | 108.3 -      | 123.3 ----       | 115.0 ----            | 125.0 ----     | 125.3 ----         | 117.3 ---           |
| 911.54850 .         | 122.4 ---- | 113.3 ---    | 123.3 ----       | 116.7 ----            | 130.0 ----     | 130.3 ----         | 121.0 ----          |
| 911.54868 .         | 116.7 ---  | 108.3 -      | 115.0 -          | 115.0 ----            | 116.7 --       | 127.3 ----         | 118.0 ---           |
| 911.54881 .         | 117.2 ---  | 113.3 ---    | 115.0 -          | 113.3 ---             | 121.7 ----     | 120.7 ---          | 119.3 ----          |
| 911.54886 .         | 120.9 ---- | 116.7 ----   | 118.3 ---        | 118.3 ----            | 123.3 ----     | 128.3 ----         | 120.7 ----          |
| 911.54980 .         | 118.1 ---  | 111.7 ---    | 116.7 --         | 113.3 ---             | 121.7 ----     | 125.3 ----         | 119.7 ----          |
| 911.54982 .         | 120.8 ---- | 111.7 ---    | 123.3 ----       | 120.0 ----            | 121.7 ----     | 128.0 ----         | 120.0 ----          |
| 991.59736 GZPK40.7  | 117.3 ---  | 108.3 -      | 118.3 ---        | 111.7 -               | 125.0 ----     | 123.0 ---          | 117.3 ---           |
| 991.59737 GZPK127.7 | 120.5 ---- | 110.0 --     | 123.3 ----       | 116.7 ----            | 126.7 ----     | 127.0 ----         | 119.3 ----          |
| 991.59738 KWS       | 126.4 ---- | 121.7 ----   | 130.0 ----       | 118.3 ----            | 130.0 ----     | 136.3 ----         | 122.3 ----          |
| 991.59739 CEDRICO   | 113.9 -    | 108.3 -      | 116.7 --         | 113.3 ---             | 115.0 -        | 115.3 -            | 115.0 -             |
| R  f  rences        | 116.7 ---  | 108.3 -      | 120.0 ---        | 113.3 ---             | 120.0 ---      | 121.3 ---          | 117.0 ---           |
| Moyenne d'essai     | 119.0 ---- | 111.7 ---    | 120.0 ---        | 115.3 ----            | 122.6 ----     | 125.4 ----         | 118.9 ----          |
| CV [%]              | 3.3        | 2.1          | 2.9              | 2.8                   | 3.1            | 4.8                | 2.8                 |
| PPDS -5%            | 2.6        | 3.9          | 5.9              | ns                    | 6.4            | 10.3               | ns                  |
| PPDS -1%            | 3.4        | 5.3          | 7.9              | ns                    | 8.7            | ns                 | ns                  |
| Ecart-type d'essai  | 3.9        | 2.3          | 3.5              | 3.2                   | 3.8            | 6.1                | 3.3                 |
| DL de l'erreur      | 130        | 22           | 22               | 22                    | 22             | 22                 | 20                  |
| Nbr. d'obs.         | 18         | 3            | 3                | 3                     | 3              | 3                  | 3                   |

WT 17000040.z3  
Epiaison +/- jours par rapport aux standards, widas 43  
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| Proc  d  s          | Moyenne  | 1260<br>Nyon | 1376<br>Goumoens | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|----------|--------------|------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 0.4 ---  | 0.7 ---      | -0.3 ---         | 0.0 -          | 0.0 ---            | 1.7 ----            |
| -911.54502 LAROSSA  | -0.4 -   | -0.7 --      | 0.3 ---          | 0.0 -          | 0.0 ---            | -1.7 ---            |
| 911.54850 .         | 2.1 ---- | 2.0 ----     | 1.0 ----         | 4.0 ----       | 1.7 ----           | 2.0 ----            |
| 911.54868 .         | 2.6 ---- | 3.0 ----     | 0.3 ---          | 6.0 ----       | 1.3 ---            | 2.3 ----            |
| 911.54881 .         | 2.6 ---- | 3.3 ----     | 2.3 ----         | 6.0 ----       | -2.0 -             | 3.3 ----            |
| 911.54886 .         | 3.1 ---- | 3.0 ----     | 2.3 ----         | 8.0 ----       | 0.0 ---            | 2.0 ----            |
| 911.54980 .         | 3.9 ---- | 4.0 ----     | 4.3 ----         | 8.0 ----       | -0.3 --            | 3.7 ----            |
| 911.54982 .         | 1.4 ---- | 2.3 ----     | 0.7 ---          | 3.3 ---        | -0.7 ---           | 1.3 ----            |
| 991.59736 GZPK40.7  | -0.7 -   | -1.7 -       | -1.7 -           | 0.0 -          | 1.3 ---            | -1.3 ---            |
| 991.59737 GZPK127.7 | 1.8 ---- | 1.7 ----     | -0.7 --          | 3.3 ----       | 2.3 ----           | 2.3 ----            |
| 991.59738 KWS       | -0.3 -   | -0.3 ---     | -1.7 -           | -0.3 -         | 4.0 ----           | -3.0 -              |
| 991.59739 CEDRICO   | 4.0 ---- | 5.0 ----     | 3.3 ----         | 8.0 ----       | -0.3 --            | 4.0 ----            |
| R  f  rences        | 0.0 --   | 0.0 ---      | 0.0 ---          | 0.0 -          | 0.0 ---            | 0.0 ---             |
| Moyenne d'essai     | 1.7 ---- | 1.9 ----     | 0.9 ----         | 3.9 ----       | 0.6 ----           | 1.4 ----            |
| CV [%]              | 105      |              |                  |                |                    |                     |
| PPDS -5%            | 2.3      | ns           | ns               | ns             | ns                 | ns                  |
| PPDS -1%            | 3.1      | ns           | ns               | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 1.8      |              |                  |                |                    |                     |
| DL de l'erreur      | 44       |              |                  |                |                    |                     |
| Nbr. d'obs.         | 5        | 1            | 1                | 1              | 1                  | 1                   |

WT 17000040.z3  
Humidité grain NIT %, widas 26  
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| Procédés            | Moyenne   | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 9.3 ----- | 8.5 -----    | 7.6 -----        | 6.8 -----             | 11.0 --        | 12.5 -----         | 9.4 -----           |
| -911.54502 LAROSSA  | 8.5 --    | 7.0 --       | 6.2 --           | 5.7 --                | 10.8 -         | 11.7 -----         | 9.3 -----           |
| 911.54850 .         | 9.0 ----- | 8.1 -----    | 7.0 -----        | 7.1 -----             | 11.4 -----     | 11.4 -----         | 9.2 -----           |
| 911.54868 .         | 9.0 ----- | 7.8 -----    | 7.9 -----        | 6.7 -----             | 11.4 -----     | 11.5 -----         | 8.8 -----           |
| 911.54881 .         | 8.5 --    | 7.3 --       | 6.4 --           | 5.7 --                | 11.0 --        | 11.4 -----         | 8.9 -----           |
| 911.54886 .         | 8.0 -     | 6.3 -        | 5.9 -            | 5.6 --                | 11.0 --        | 10.7 -             | 8.5 -               |
| 911.54980 .         | 8.2 --    | 6.3 -        | 5.9 -            | 4.9 -                 | 10.7 -         | 11.2 -----         | 10.3 -----          |
| 911.54982 .         | 8.4 --    | 7.0 --       | 6.6 --           | 5.8 --                | 11.0 --        | 10.8 --            | 9.1 -----           |
| 991.59736 GZPK40.7  | 9.2 ----- | 8.0 -----    | 7.8 -----        | 6.7 -----             | 11.4 -----     | 11.7 -----         | 9.4 -----           |
| 991.59737 GZPK127.7 | 8.9 ----- | 7.4 -----    | 7.5 -----        | 6.5 -----             | 11.2 -----     | 11.4 -----         | 9.3 -----           |
| 991.59738 KWS       | 9.6 ----- | 8.0 -----    | 9.1 -----        | 7.4 -----             | 11.6 -----     | 12.2 -----         | 9.3 -----           |
| 991.59739 CEDRICO   | 9.4 ----- | 8.5 -----    | 8.4 -----        | 7.0 -----             | 11.4 -----     | 11.6 -----         | 9.6 -----           |
| Références          | 8.9 ----- | 7.8 -----    | 6.9 -----        | 6.3 -----             | 10.9 --        | 12.1 -----         | 9.4 -----           |
| Moyenne d'essai     | 8.8 ----- | 7.5 -----    | 7.2 -----        | 6.3 -----             | 11.1 -----     | 11.5 -----         | 9.3 -----           |
| CV [%]              | 5.2       | 3            | 2.5              | 4.9                   | 0.6            | 2.6                | 11.2                |
| PPDS -5%            | 0.3       | 0.4          | 0.3              | 0.5                   | 0.1            | 0.5                | ns                  |
| PPDS -1%            | 0.4       | 0.5          | 0.4              | 0.7                   | 0.2            | 0.7                | ns                  |
| Ecart-type d'essai  | 0.5       | 0.2          | 0.2              | 0.3                   | 0.1            | 0.3                | 1                   |
| DL de l'erreur      | 130       | 22           | 22               | 22                    | 22             | 22                 | 20                  |
| Nbr. d'obs.         | 18        | 3            | 3                | 3                     | 3              | 3                  | 3                   |

WT 17000040.z3  
Rdt. du triage %, widas 29  
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| Procédés            | Moyenne    | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|------------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 89.6 ----- | 88.5 -----   | 96.0 -----       | 92.2 -----            | 91.5 -         | 83.7 -----         | 85.5 -----          |
| -911.54502 LAROSSA  | 87.9 ----- | 91.4 -----   | 95.3 -----       | 89.3 -----            | 96.5 -----     | 71.5 --            | 83.5 -----          |
| 911.54850 .         | 92.4 ----- | 87.0 -----   | 97.5 -----       | 97.3 -----            | 97.5 -----     | 84.1 -----         | 91.3 -----          |
| 911.54868 .         | 91.6 ----- | 93.6 -----   | 95.6 -----       | 88.8 -----            | 93.7 --        | 92.4 -----         | 85.6 -----          |
| 911.54881 .         | 90.0 ----- | 87.2 -----   | 96.1 -----       | 90.7 -----            | 95.6 -----     | 78.8 -----         | 91.7 -----          |
| 911.54886 .         | 86.0 ----- | 80.1 -       | 95.0 -----       | 89.3 -----            | 94.1 -----     | 71.7 --            | 85.5 -----          |
| 911.54980 .         | 81.4 -     | 91.8 -----   | 88.1 -           | 72.4 -----            | 91.7 -         | 65.3 -             | 78.9 -----          |
| 911.54982 .         | 90.1 ----- | 92.3 -----   | 95.7 -----       | 90.2 -----            | 92.3 --        | 81.7 -----         | 88.2 -----          |
| 991.59736 GZPK40.7  | 89.1 ----- | 91.1 -----   | 97.6 -----       | 94.9 -----            | 93.8 -----     | 87.8 -----         | 69.5 -              |
| 991.59737 GZPK127.7 | 88.1 ----- | 95.5 -----   | 95.0 -----       | 88.3 -----            | 91.3 -         | 76.6 -----         | 81.8 -----          |
| 991.59738 KWS       | 87.5 ----- | 92.9 -----   | 96.8 -----       | 59.8 --               | 95.2 -----     | 93.4 -----         | 87.0 -----          |
| 991.59739 CEDRICO   | 85.9 ----- | 92.2 -----   | 97.6 -----       | 55.5 -                | 94.5 -----     | 89.7 -----         | 86.0 -----          |
| Références          | 88.7 ----- | 90.0 -----   | 95.7 -----       | 90.7 -----            | 94.0 -----     | 77.6 -----         | 84.5 -----          |
| Moyenne d'essai     | 88.3 ----- | 90.3 -----   | 95.5 -----       | 84.1 -----            | 94.0 -----     | 81.4 -----         | 84.5 -----          |
| CV [%]              | 8.4        |              |                  |                       |                |                    |                     |
| PPDS -5%            | ns         | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| PPDS -1%            | ns         | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 7.4        |              |                  |                       |                |                    |                     |
| DL de l'erreur      | 55         |              |                  |                       |                |                    |                     |
| Nbr. d'obs.         | 6          |              |                  |                       |                |                    |                     |

WT 17000040.z3  
 PHL moyen kg/ha, widas 37  
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| Proc d s<br>S rie   | Moyenne    | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|------------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 70.3 ----- | 73.5 -----   | 73.3 -----       | 70.6 -----            | 73.1 -----     | 71.9 -----         | 59.2 ----           |
| -911.54502 LAROSSA  | 68.1 ----  | 70.5 --      | 69.6 --          | 67.1 ----             | 71.6 ----      | 69.0 ----          | 60.6 -----          |
| 911.54850 .         | 69.8 ----- | 72.4 -----   | 71.4 ----        | 71.4 -----            | 73.0 -----     | 70.3 -----         | 60.6 -----          |
| 911.54868 .         | 70.4 ----- | 72.3 -----   | 74.1 -----       | 69.9 -----            | 72.6 -----     | 72.1 -----         | 61.2 -----          |
| 911.54881 .         | 67.7 ----  | 71.8 -----   | 70.4 --          | 66.0 --               | 70.5 --        | 67.1 --            | 60.6 -----          |
| 911.54886 .         | 67.3 ----  | 70.2 --      | 69.6 --          | 65.8 --               | 71.1 ----      | 67.3 ----          | 59.7 -----          |
| 911.54980 .         | 65.4 -     | 69.2 -       | 68.2 -           | 64.2 -                | 68.9 -         | 65.9 -             | 56.0 -              |
| 911.54982 .         | 68.7 ----- | 70.2 --      | 71.9 -----       | 68.0 -----            | 71.5 -----     | 68.4 -----         | 62.3 -----          |
| 991.59736 GZPK40.7  | 70.4 ----- | 73.1 -----   | 74.5 -----       | 70.6 -----            | 74.1 -----     | 71.9 -----         | 58.2 ----           |
| 991.59737 GZPK127.7 | 69.0 ----- | 71.0 -----   | 72.7 -----       | 68.4 -----            | 71.9 -----     | 69.4 -----         | 60.3 -----          |
| 991.59738 KWS       | 71.9 ----- | 73.4 -----   | 76.2 -----       | 71.5 -----            | 74.6 -----     | 72.5 -----         | 62.8 -----          |
| 991.59739 CEDRICO   | 71.3 ----- | 73.7 -----   | 75.2 -----       | 69.9 -----            | 73.9 -----     | 71.8 -----         | 63.5 -----          |
| R f rences          | 69.2 ----- | 72.0 -----   | 71.5 -----       | 68.8 -----            | 72.4 -----     | 70.5 -----         | 59.9 -----          |
| Moyenne d'essai     | 69.2 ----- | 71.8 -----   | 72.3 -----       | 68.6 -----            | 72.2 -----     | 69.8 -----         | 60.4 -----          |
| CV [%]              | 1.2        | 0.7          | 0.8              | 1.3                   | 0.5            | 0.8                | 2.7                 |
| PPDS -5%            | 0.6        | 0.8          | 1                | 1.5                   | 0.6            | 0.9                | 2.8                 |
| PPDS -1%            | 0.7        | 1.1          | 1.4              | 2                     | 0.8            | 1.2                | 3.8                 |
| Ecart-type d'essai  | 0.8        | 0.5          | 0.6              | 0.9                   | 0.3            | 0.5                | 1.6                 |
| DL de l'erreur      | 128        | 22           | 22               | 22                    | 22             | 20                 | 20                  |
| Nbr. d'obs.         | 18         | 3            | 3                | 3                     | 3              | 3                  | 3                   |

WT 17000040.z3  
 PMG gr, widas 33  
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| Proc d s<br>S rie   | Moyenne    | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|------------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 42.1 ----  | 45.7 -----   | 42.5 -----       | 37.3 ----             | 44.8 ----      | 43.6 -----         | 38.9 ----           |
| -911.54502 LAROSSA  | 43.1 ----- | 46.2 -----   | 42.3 ----        | 35.2 --               | 47.6 -----     | 46.5 -----         | 40.8 -----          |
| 911.54850 .         | 46.9 ----- | 48.0 -----   | 47.5 -----       | 42.8 -----            | 50.7 -----     | 48.9 -----         | 43.5 -----          |
| 911.54868 .         | 43.8 ----- | 47.1 -----   | 41.5 ----        | 37.8 -----            | 47.7 -----     | 46.1 -----         | 42.3 -----          |
| 911.54881 .         | 42.0 ----  | 43.3 ----    | 43.1 -----       | 36.6 ----             | 44.7 ----      | 41.9 ----          | 42.2 -----          |
| 911.54886 .         | 42.3 ----- | 45.4 -----   | 41.2 ----        | 37.1 ----             | 46.2 -----     | 43.7 -----         | 40.2 -----          |
| 911.54980 .         | 41.2 ----  | 44.5 ----    | 41.0 ----        | 33.8 --               | 45.5 -----     | 42.1 ----          | 40.3 -----          |
| 911.54982 .         | 42.5 ----- | 47.0 -----   | 41.6 ----        | 38.0 -----            | 45.6 -----     | 42.8 -----         | 40.2 -----          |
| 991.59736 GZPK40.7  | 44.1 ----- | 50.5 -----   | 44.9 -----       | 38.4 -----            | 48.3 -----     | 40.5 ----          | 41.8 -----          |
| 991.59737 GZPK127.7 | 38.6 --    | 41.4 --      | 37.6 -           | 32.7 -                | 42.9 --        | 40.0 --            | 37.0 ----           |
| 991.59738 KWS       | 39.7 --    | 43.1 ----    | 39.1 --          | 34.9 --               | 42.8 --        | 41.5 ----          | 37.1 --             |
| 991.59739 CEDRICO   | 37.8 -     | 39.9 -       | 39.2 --          | 33.8 --               | 40.3 -         | 38.4 -             | 35.0 -              |
| R f rences          | 42.6 ----- | 46.0 -----   | 42.4 -----       | 36.3 ----             | 46.2 -----     | 45.1 -----         | 39.9 -----          |
| Moyenne d'essai     | 42.0 ----- | 45.2 -----   | 41.8 -----       | 36.5 ----             | 45.6 -----     | 43.0 -----         | 39.9 -----          |
| CV [%]              | 3.2        |              |                  |                       |                |                    |                     |
| PPDS -5%            | 1.6        | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| PPDS -1%            | 2.1        | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 1.3        |              |                  |                       |                |                    |                     |
| DL de l'erreur      | 55         |              |                  |                       |                |                    |                     |
| Nbr. d'obs.         | 6          |              |                  |                       |                |                    |                     |

WT 17000040.z3

Teneur en protéine grains NIT %, widas 89

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| Procédés<br>Série   | Moyenne   | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 10.6 ---- | 8.1 ---      | 10.0 ---         | 10.7 ---              | 11.0 ----      | 11.3 ---           | 12.3 ----           |
| -911.54502 LAROSSA  | 11.5 ---- | 8.7 ----     | 12.2 ----        | 12.1 ----             | 11.8 ----      | 12.3 ----          | 12.1 ---            |
| 911.54850 .         | 10.7 ---- | 7.8 --       | 10.6 ---         | 11.1 ---              | 10.8 ---       | 12.3 ----          | 11.8 ---            |
| 911.54868 .         | 11.4 ---- | 8.9 ----     | 11.4 ----        | 12.4 ----             | 11.9 ----      | 11.7 ---           | 12.2 ---            |
| 911.54881 .         | 10.4 ---  | 7.5 -        | 10.3 ---         | 10.4 ---              | 10.9 ----      | 11.5 ----          | 11.6 ---            |
| 911.54886 .         | 11.2 ---- | 9.4 ----     | 11.5 ----        | 11.6 ----             | 11.3 ----      | 12.1 ----          | 11.3 ---            |
| 911.54980 .         | 10.9 ---- | 7.8 --       | 11.0 ----        | 10.8 ---              | 10.4 ---       | 12.5 ----          | 12.6 ----           |
| 911.54982 .         | 10.9 ---- | 8.3 ---      | 10.8 ---         | 11.9 ----             | 10.6 ---       | 11.5 ---           | 12.4 ----           |
| 991.59736 GZPK40.7  | 11.4 ---- | 7.8 --       | 11.1 ----        | 11.6 ----             | 12.0 ----      | 12.5 ----          | 13.3 ----           |
| 991.59737 GZPK127.7 | 10.8 ---- | 8.3 ---      | 10.6 ---         | 11.6 ----             | 10.7 ---       | 11.5 ----          | 12.2 ---            |
| 991.59738 KWS       | 9.6 -     | 7.6 -        | 9.3 -            | 9.8 -                 | 9.3 -          | 10.7 --            | 11.0 --             |
| 991.59739 CEDRICO   | 9.4 -     | 7.5 -        | 9.1 -            | 9.7 -                 | 9.3 -          | 10.3 -             | 10.6 -              |
| Références          | 11.1 ---- | 8.4 ---      | 11.1 ----        | 11.4 ----             | 11.4 ----      | 11.8 ----          | 12.2 ----           |
| Moyenne d'essai     | 10.7 ---- | 8.1 ---      | 10.7 ----        | 11.1 ----             | 10.8 ---       | 11.7 ----          | 12.0 ----           |
| CV [%]              | 4.3       |              |                  |                       |                |                    |                     |
| PPDS -5%            | 0.5       | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| PPDS -1%            | 0.7       | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 0.5       |              |                  |                       |                |                    |                     |
| DL de l'erreur      | 55        |              |                  |                       |                |                    |                     |
| Nbr. d'obs.         | 6         |              |                  |                       |                |                    |                     |

WT 17000040.z3

Rdt. en protéines dt/ha, widas 24

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| Procédés<br>Série   | Moyenne   | 1260<br>Nyon | 1376<br>Goumoens | 1510<br>Grange-Verney | 1567<br>Delley | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|--------------|------------------|-----------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 9.2 --    | 5.9 ---      | 11.3 ---         | 9.6 ----              | 9.4 ---        | 10.2 -             | 8.8 -               |
| -911.54502 LAROSSA  | 10.7 ---- | 6.5 ----     | 13.2 ----        | 10.2 ----             | 11.3 ----      | 12.4 ----          | 10.5 ----           |
| 911.54850 .         | 10.2 ---- | 5.9 ---      | 11.7 ---         | 10.2 ----             | 11.3 ----      | 12.7 ----          | 9.3 --              |
| 911.54868 .         | 10.4 ---- | 6.0 ---      | 12.7 ----        | 10.5 ----             | 10.9 ----      | 12.3 ----          | 9.8 ---             |
| 911.54881 .         | 9.5 ---   | 5.7 ---      | 11.3 ---         | 8.2 -                 | 10.1 ---       | 11.1 ---           | 10.6 ----           |
| 911.54886 .         | 10.6 ---- | 7.2 ----     | 12.5 ----        | 9.3 ---               | 11.6 ----      | 12.2 ----          | 11.1 ----           |
| 911.54980 .         | 9.5 ---   | 6.1 ---      | 11.4 ---         | 8.8 ---               | 9.6 ---        | 11.7 ----          | 9.2 --              |
| 911.54982 .         | 10.4 ---- | 6.5 ----     | 12.7 ----        | 10.1 ----             | 9.8 ---        | 11.3 ----          | 11.6 ----           |
| 991.59736 GZPK40.7  | 9.8 ----  | 5.2 -        | 11.2 --          | 9.8 ----              | 11.1 ----      | 12.1 ----          | 9.5 ---             |
| 991.59737 GZPK127.7 | 9.2 --    | 5.5 --       | 10.6 -           | 9.2 ---               | 9.7 ---        | 10.6 ---           | 9.3 --              |
| 991.59738 KWS       | 9.2 --    | 5.0 -        | 11.0 --          | 9.1 ---               | 8.7 -          | 11.7 ----          | 9.6 ---             |
| 991.59739 CEDRICO   | 8.7 -     | 6.0 ---      | 10.6 -           | 8.0 -                 | 8.9 -          | 9.9 -              | 8.9 -               |
| Références          | 9.9 ----  | 6.2 ----     | 12.2 ----        | 9.9 ----              | 10.4 ----      | 11.3 ---           | 9.7 ---             |
| Moyenne d'essai     | 9.8 ----  | 6.0 ---      | 11.7 ---         | 9.4 ----              | 10.2 ----      | 11.5 ----          | 9.9 ---             |
| CV [%]              | 6.1       |              |                  |                       |                |                    |                     |
| PPDS -5%            | 0.7       | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| PPDS -1%            | 0.9       | ns           | ns               | ns                    | ns             | ns                 | ns                  |
| Ecart-type d'essai  | 0.6       |              |                  |                       |                |                    |                     |
| DL de l'erreur      | 55        |              |                  |                       |                |                    |                     |
| Nbr. d'obs.         | 6         |              |                  |                       |                |                    |                     |

WT 17000040.z3  
Oidium Note 1 obs. naturel, widas 64  
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| Proc d s<br>S rie   | Moyenne   | 1376<br>Goumoens | 1510<br>Moudon | 3428<br>Utzenstorf | 8566<br>Ellighausen |
|---------------------|-----------|------------------|----------------|--------------------|---------------------|
| -911.54087 TRIALDO  | 1.3 ----- | 1.7 -----        | 1.3 -----      | 1.3 ---            | 1.0 -               |
| -911.54502 LAROSSA  | 1.1 --    | 1.0 -            | 1.0 -          | 1.3 ---            | 1.0 -               |
| 911.54850 .         | 1.1 --    | 1.0 -            | 1.0 -          | 1.3 ---            | 1.0 -               |
| 911.54868 .         | 1.2 ---   | 1.0 -            | 1.0 -          | 1.7 ---            | 1.0 -               |
| 911.54881 .         | 1.5 ----- | 1.3 ---          | 1.0 -          | 2.7 -----          | 1.0 -               |
| 911.54886 .         | 1.1 --    | 1.3 ---          | 1.0 -          | 1.0 -              | 1.0 -               |
| 911.54980 .         | 1.1 --    | 1.0 -            | 1.0 -          | 1.3 ---            | 1.0 -               |
| 911.54982 .         | 1.4 ----- | 2.0 -----        | 1.0 -          | 1.7 ---            | 1.0 -               |
| 991.59736 GZPK40.7  | 1.0 -     | 1.0 -            | 1.0 -          | 1.0 -              | 1.0 -               |
| 991.59737 GZPK127.7 | 1.3 ---   | 1.0 -            | 1.0 -          | 1.0 -              | 2.0 -----           |
| 991.59738 KWS       | 1.1 --    | 1.0 -            | 1.0 -          | 1.3 ---            | 1.0 -               |
| 991.59739 CEDRICO   | 1.3 ---   | 1.7 ---          | 1.3 -----      | 1.0 -              | 1.0 -               |
| R f rences          | 1.2 ---   | 1.3 ---          | 1.2 ---        | 1.3 ---            | 1.0 -               |
| Moyenne d'essai     | 1.2 ---   | 1.3 ---          | 1.1 --         | 1.4 ---            | 1.1 -               |
| CV [%]              | 35.2      | 52.6             | 21.3           | 34.1               | 0                   |
| PPDS -5%            | ns        | ns               | ns             | 0.8                | 0                   |
| PPDS -1%            | ns        | ns               | ns             | ns                 | 0                   |
| Ecart-type d'essai  | 0.4       | 0.7              | 0.2            | 0.5                | 0                   |
| DL de l'erreur      | 88        | 22               | 22             | 22                 | 22                  |
| Nbr. d'obs.         | 12        | 3                | 3              | 3                  | 3                   |

WT 17000040.z3  
Rouille Brune naturelle note 1, widas 68  
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| Proc d s<br>S rie   | Moyenne   | 1376<br>Goumoens |
|---------------------|-----------|------------------|
| -911.54087 TRIALDO  | 1.0 -     | 1.0 -            |
| -911.54502 LAROSSA  | 1.0 -     | 1.0 -            |
| 911.54850 .         | 1.0 -     | 1.0 -            |
| 911.54868 .         | 1.0 -     | 1.0 -            |
| 911.54881 .         | 1.0 -     | 1.0 -            |
| 911.54886 .         | 1.0 -     | 1.0 -            |
| 911.54980 .         | 1.0 -     | 1.0 -            |
| 911.54982 .         | 1.0 -     | 1.0 -            |
| 991.59736 GZPK40.7  | 2.3 ----- | 2.3 -----        |
| 991.59737 GZPK127.7 | 1.0 -     | 1.0 -            |
| 991.59738 KWS       | 1.0 -     | 1.0 -            |
| 991.59739 CEDRICO   | 1.0 -     | 1.0 -            |
| R f rences          | 1.0 -     | 1.0 -            |
| Moyenne d'essai     | 1.1 -     | 1.1 -            |
| CV [%]              | 30        | 30               |
| PPDS -5%            | 0.6       | 0.6              |
| PPDS -1%            | 0.8       | 0.8              |
| Ecart-type d'essai  | 0.3       | 0.3              |
| DL de l'erreur      | 22        | 22               |
| Nbr. d'obs.         | 3         | 3                |

WT 17000040.z3

Septoria Nodorum sur feuille naturelle note, widas 71

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| Procédés<br>Série   | Moyenne |       | 1376<br>Goumoens |       | 1510<br>Grange-Verney |       | 8566<br>Ellighausen |       |
|---------------------|---------|-------|------------------|-------|-----------------------|-------|---------------------|-------|
| -911.54087 TRIALDO  | 2.6     | ----- | 2.7              | ----- | 2.0                   | -     | 3.0                 | ----- |
| -911.54502 LAROSSA  | 2.1     | --    | 2.3              | ---   | 2.0                   | -     | 2.0                 | -     |
| 911.54850 .         | 2.2     | ---   | 2.3              | ---   | 2.0                   | -     | 2.3                 | ---   |
| 911.54868 .         | 2.2     | ---   | 2.7              | ----- | 2.0                   | -     | 2.0                 | -     |
| 911.54881 .         | 2.2     | ---   | 2.0              | -     | 2.0                   | -     | 2.7                 | ----- |
| 911.54886 .         | 2.0     | -     | 2.0              | -     | 2.0                   | -     | 2.0                 | -     |
| 911.54980 .         | 2.3     | ----- | 2.3              | ---   | 2.0                   | -     | 2.7                 | ----- |
| 911.54982 .         | 2.3     | ----- | 2.7              | ----- | 2.0                   | -     | 2.3                 | ---   |
| 991.59736 GZPK40.7  | 2.3     | ----- | 2.3              | ---   | 2.0                   | -     | 2.7                 | ----- |
| 991.59737 GZPK127.7 | 2.7     | ----- | 3.3              | ----- | 2.3                   | ----- | 2.3                 | ---   |
| 991.59738 KWS       | 2.0     | -     | 2.0              | -     | 2.0                   | -     | 2.0                 | -     |
| 991.59739 CEDRICO   | 2.1     | --    | 2.3              | ---   | 2.0                   | -     | 2.0                 | -     |
| Références          | 2.3     | ----- | 2.5              | ---   | 2.0                   | -     | 2.5                 | ----- |
| Moyenne d'essai     | 2.3     | ---   | 2.4              | ---   | 2.0                   | -     | 2.3                 | ---   |
| CV                  | [%]     | 16.7  | 16.1             |       | 8.2                   |       | 21.4                |       |
| PPDS                | -5%     | 0.4   | 0.7              |       | ns                    |       | ns                  |       |
| PPDS                | -1%     | 0.5   | ns               |       | ns                    |       | ns                  |       |
| Ecart-type d'essai  |         | 0.4   | 0.4              |       | 0.2                   |       | 0.5                 |       |
| DL de l'erreur      |         | 66    | 22               |       | 22                    |       | 22                  |       |
| Nbr. d'obs.         |         | 9     | 3                |       | 3                     |       | 3                   |       |

WT 17000040.z3

Septoria Nodorum sur épi naturelle note, widas 72

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| Procédés<br>Série   | Moyenne |       | 1260<br>Nyon |       |
|---------------------|---------|-------|--------------|-------|
| -911.54087 TRIALDO  | 1.3     | ---   | 1.3          | ---   |
| -911.54502 LAROSSA  | 1.3     | ---   | 1.3          | ---   |
| 911.54850 .         | 1.0     | -     | 1.0          | -     |
| 911.54868 .         | 1.7     | ----- | 1.7          | ----- |
| 911.54881 .         | 1.3     | ---   | 1.3          | ---   |
| 911.54886 .         | 1.0     | -     | 1.0          | -     |
| 911.54980 .         | 1.0     | -     | 1.0          | -     |
| 911.54982 .         | 1.7     | ----- | 1.7          | ----- |
| 991.59736 GZPK40.7  | 2.0     | ----- | 2.0          | ----- |
| 991.59737 GZPK127.7 | 1.7     | ----- | 1.7          | ----- |
| 991.59738 KWS       | 1.0     | -     | 1.0          | -     |
| 991.59739 CEDRICO   | 1.7     | ----- | 1.7          | ----- |
| Références          | 1.3     | ---   | 1.3          | ---   |
| Moyenne d'essai     | 1.4     | ---   | 1.4          | ---   |
| CV                  | [%]     | 43.3  | 43.3         |       |
| PPDS                | -5%     | ns    | ns           |       |
| PPDS                | -1%     | ns    | ns           |       |
| Ecart-type d'essai  |         | 0.6   | 0.6          |       |
| DL de l'erreur      |         | 22    | 22           |       |
| Nbr. d'obs.         |         | 3     | 3            |       |

WT 17000040.z3  
Note du grain, widas 51  
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| Proc d s<br>S rie   | Moyenne |       | 3428<br>Utzenstorf |       | 8566<br>Ellighausen |       |
|---------------------|---------|-------|--------------------|-------|---------------------|-------|
| -911.54087 TRIALDO  | 3.5     | ----  | 3.0                | ----  | 4.0                 | ----  |
| -911.54502 LAROSSA  | 4.0     | ----- | 4.0                | ----- | 4.0                 | ----- |
| 911.54850 .         | 2.5     | -     | 2.0                | -     | 3.0                 | -     |
| 911.54868 .         | 4.0     | ----- | 4.0                | ----- | 4.0                 | ----- |
| 911.54881 .         | 3.0     | ---   | 3.0                | ----  | 3.0                 | -     |
| 911.54886 .         | 3.0     | ---   | 3.0                | ----- | 3.0                 | -     |
| 911.54980 .         | 4.0     | ----- | 4.0                | ----- | 4.0                 | ----- |
| 911.54982 .         | 3.5     | ----- | 4.0                | ----- | 3.0                 | -     |
| 991.59736 GZPK40.7  | 3.0     | ---   | 2.0                | -     | 4.0                 | ----- |
| 991.59737 GZPK127.7 | 4.0     | ----- | 4.0                | ----- | 4.0                 | ----- |
| 991.59738 KWS       | 4.5     | ----- | 4.0                | ----- | 5.0                 | ----- |
| 991.59739 CEDRICO   | 4.5     | ----- | 4.0                | ----- | 5.0                 | ----- |
| R f rences          | 3.8     | ----- | 3.5                | ----- | 4.0                 | ----- |
| Moyenne d'essai     | 3.6     | ----- | 3.4                | ----- | 3.8                 | ----- |
| CV                  | 15.5    |       |                    |       |                     |       |
| PPDS -5%            | ns      |       | ns                 |       | ns                  |       |
| PPDS -1%            | ns      |       | ns                 |       | ns                  |       |
| Ecart-type d'essai  | 0.6     |       |                    |       |                     |       |
| DL de l'erreur      | 11      |       |                    |       |                     |       |
| Nbr. d'obs.         | 2       |       |                    |       |                     |       |

WT 17000040.z3  
Hivernage, widas 40  
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| Proc d s<br>S rie   | Moyenne |       | 3428<br>Utzenstorf |   | 8566<br>Ellighausen |       |
|---------------------|---------|-------|--------------------|---|---------------------|-------|
| -911.54087 TRIALDO  | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| -911.54502 LAROSSA  | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| 911.54850 .         | 1.2     | ----  | 1.0                | - | 1.3                 | ----  |
| 911.54868 .         | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| 911.54881 .         | 1.2     | ----  | 1.0                | - | 1.3                 | ----  |
| 911.54886 .         | 1.3     | ----- | 1.0                | - | 1.7                 | ----- |
| 911.54980 .         | 1.5     | ----- | 1.0                | - | 2.0                 | ----- |
| 911.54982 .         | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| 991.59736 GZPK40.7  | 1.2     | ----  | 1.0                | - | 1.3                 | ----  |
| 991.59737 GZPK127.7 | 1.2     | ----  | 1.0                | - | 1.3                 | ----  |
| 991.59738 KWS       | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| 991.59739 CEDRICO   | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| R f rences          | 1.0     | -     | 1.0                | - | 1.0                 | -     |
| Moyenne d'essai     | 1.1     | ---   | 1.0                | - | 1.3                 | ---   |
| CV                  | 32.7    |       | 0                  |   | 42.6                |       |
| PPDS -5%            | ns      |       | ns                 |   | ns                  |       |
| PPDS -1%            | ns      |       | ns                 |   | ns                  |       |
| Ecart-type d'essai  | 0.4     |       | 0                  |   | 0.5                 |       |
| DL de l'erreur      | 42      |       | 22                 |   | 20                  |       |
| Nbr. d'obs.         | 6       |       | 3                  |   | 3                   |       |