



## Essais variétaux de soja 2017 Sortenversuche Soja 2017

### Auteurs

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## Table

Lexique - *Lexikon*

Météo - *Wetter*

Soja - *Soja*

> *Changins*  
> *Goumoëns*  
> *Giez*  
> *Delley*  
> *Reckenholz*

Collaborations: Cécile Brabant, Carine Oberson et d'autres collaborateurs (DR 14.1) pour les analyses qualitatives de grains, Claude-Alain Betrix (DR 14.1) pour l'évaluation de la tolérance au froid des variétés, Rainer Messmer et son équipe (DSP Delley) pour leur participation dans les essais.

## Lexique

### Description

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Floraison	précocité à la floraison nombre de nœuds portant une fleur à une date donnée
Hauteur	hauteur du couvert végétal (cm)
Humidité	humidité du grain à la récolte (%)
PMG	poids de mille grains (g)
Protéines	teneur en protéines (%ms)
Protéines val.rel.	teneur en protéines en valeur relative par rapport aux témoins (%)
Rendement	rendement en grains à humidité standard (dt/ha)
Rendement val.rel.	rendement en valeur relative par rapport aux témoins (%)
Verse	résistance à l'affaissement; note de 1 à 9 (1 = dressé, 9 = versé)

## Lexikon

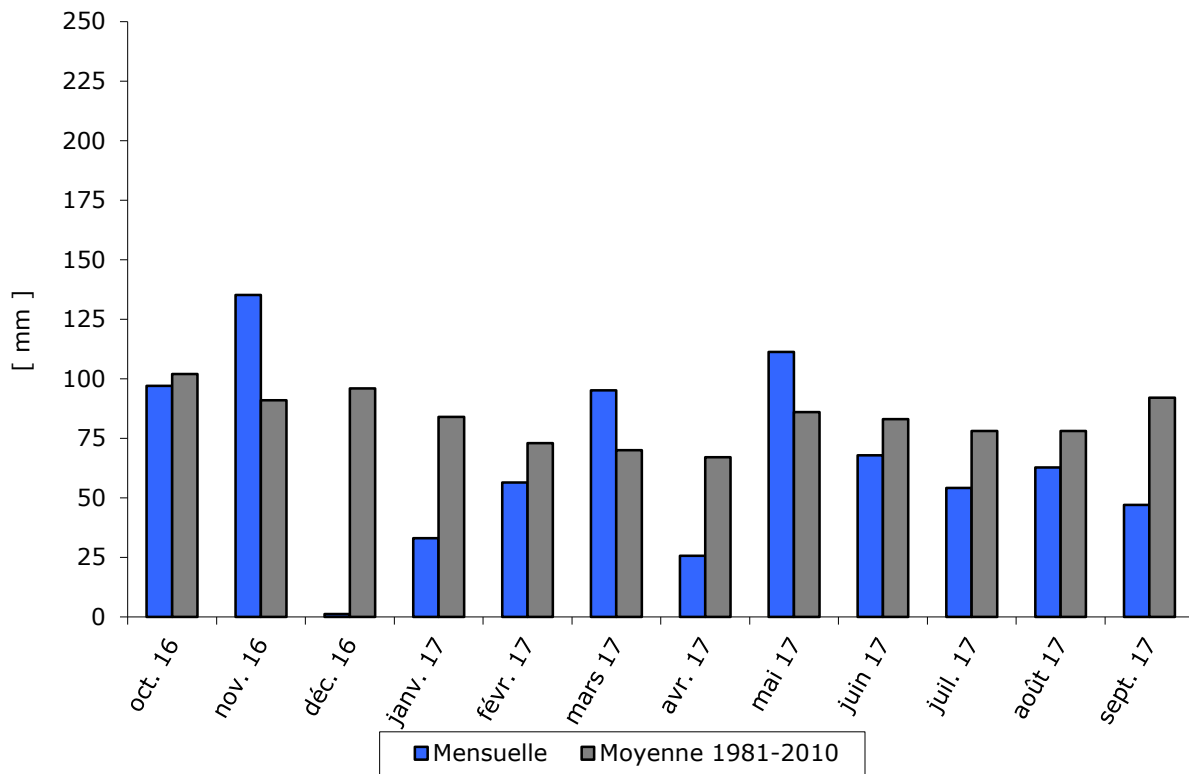
### Beschreibung

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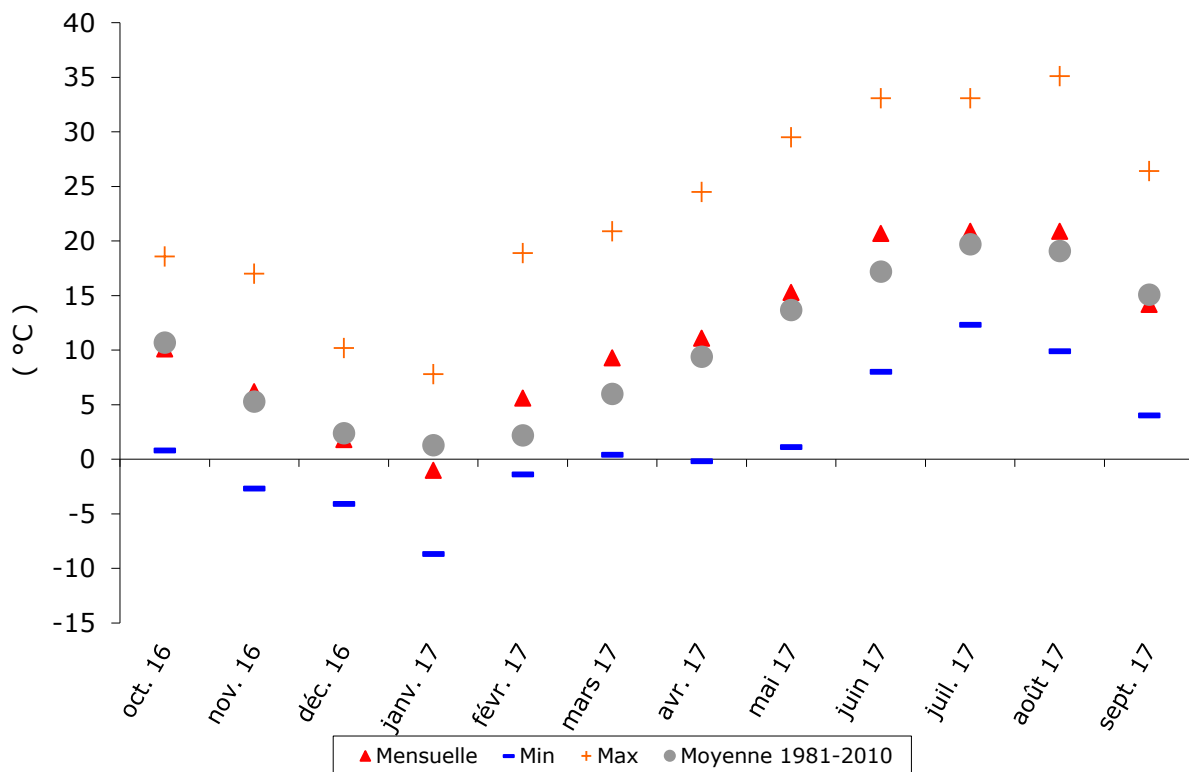
Blüte	Frühreife zum Blühzeitpunkt Anzahl Knoten mit einer Blüte zu einem bestimmten Datum
Höhe	Bestandeshöhe (cm)
Feuchtigkeit	Feuchtigkeit der Körner bei der Ernte (%)
TKG	Tausendkorngewicht (g)
Protein	Proteingehalt (%)
Relativer Proteingehalt	relativer Proteingehalt im Vergleich zu den Standardsorten (%)
Ertrag	Körnerertrag bei standard Feuchtigkeit (dt/ha)
Relativer Ertrag	relativer Ertrag im Vergleich zu den Standardsorten
Standfestigkeit	Standfestigkeit, Note 1 bis 9 (1 = nicht gelagert, 9 = totale Lagerung)

## Météo selon les lieux d'essai en 2017 - Changins, Alt. : 430 m

Précipitations, saison 2016 - 2017



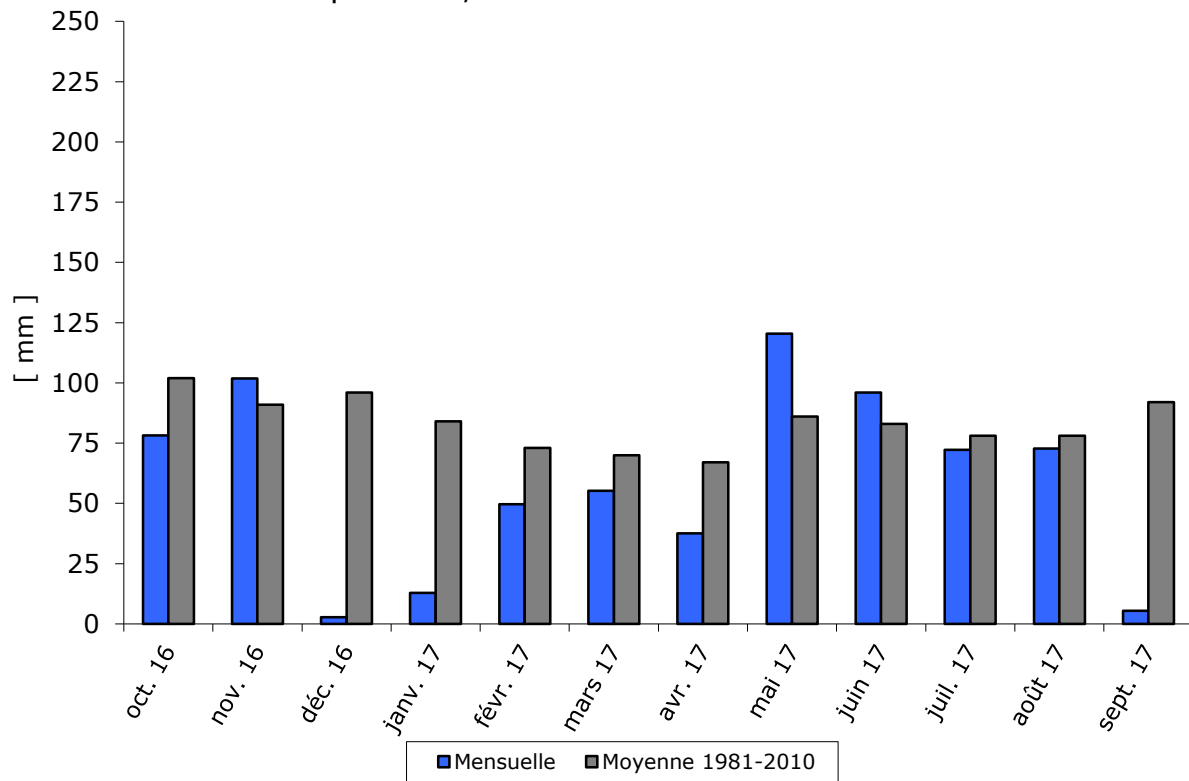
Températures, saison 2016 - 2017



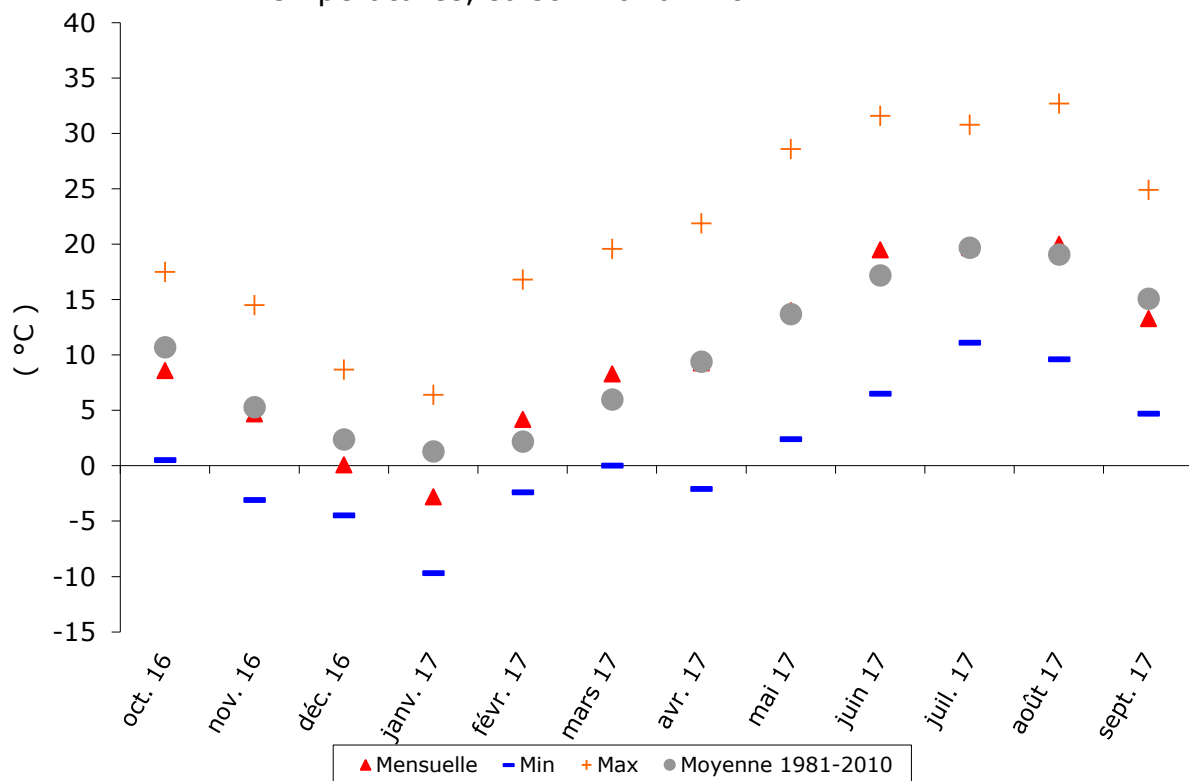
## Météo selon les lieux d'essai en 2017 - Goumoëns, Alt. : 640 m

(Les moyennes de 30 ans sont celles de Changins)

### Précipitations, saison 2016 - 2017



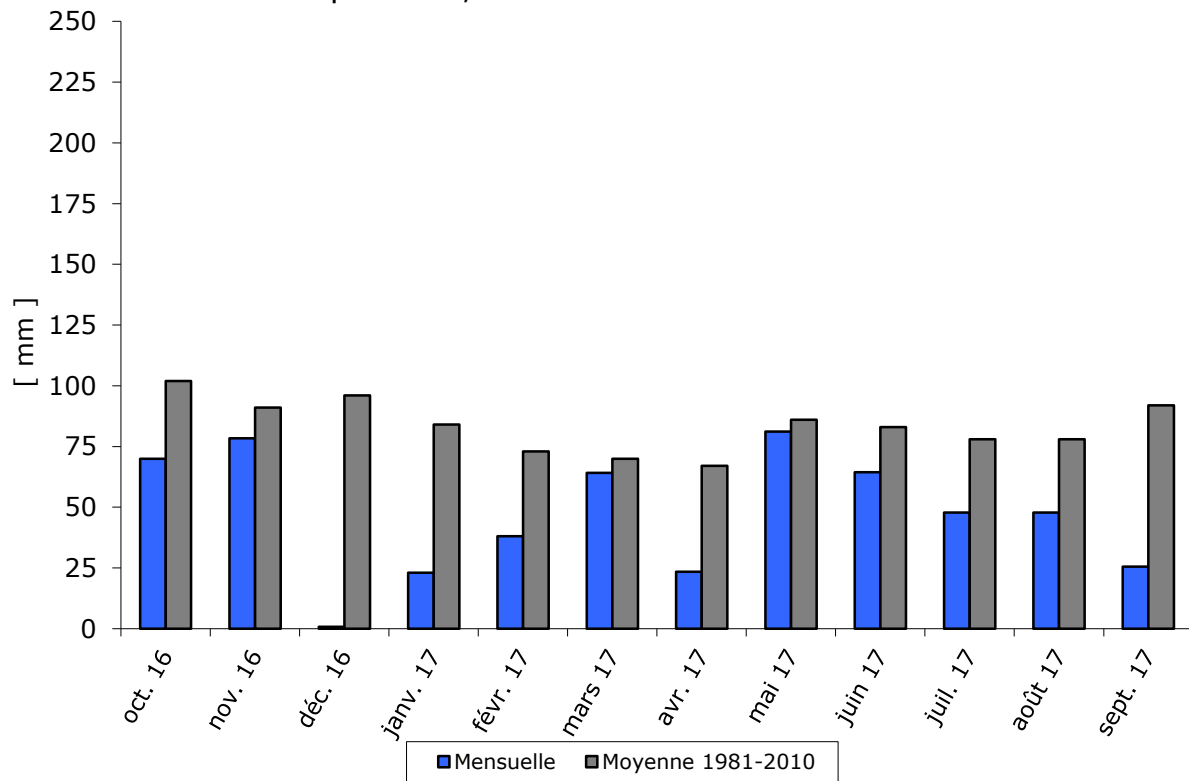
### Températures, saison 2016 - 2017



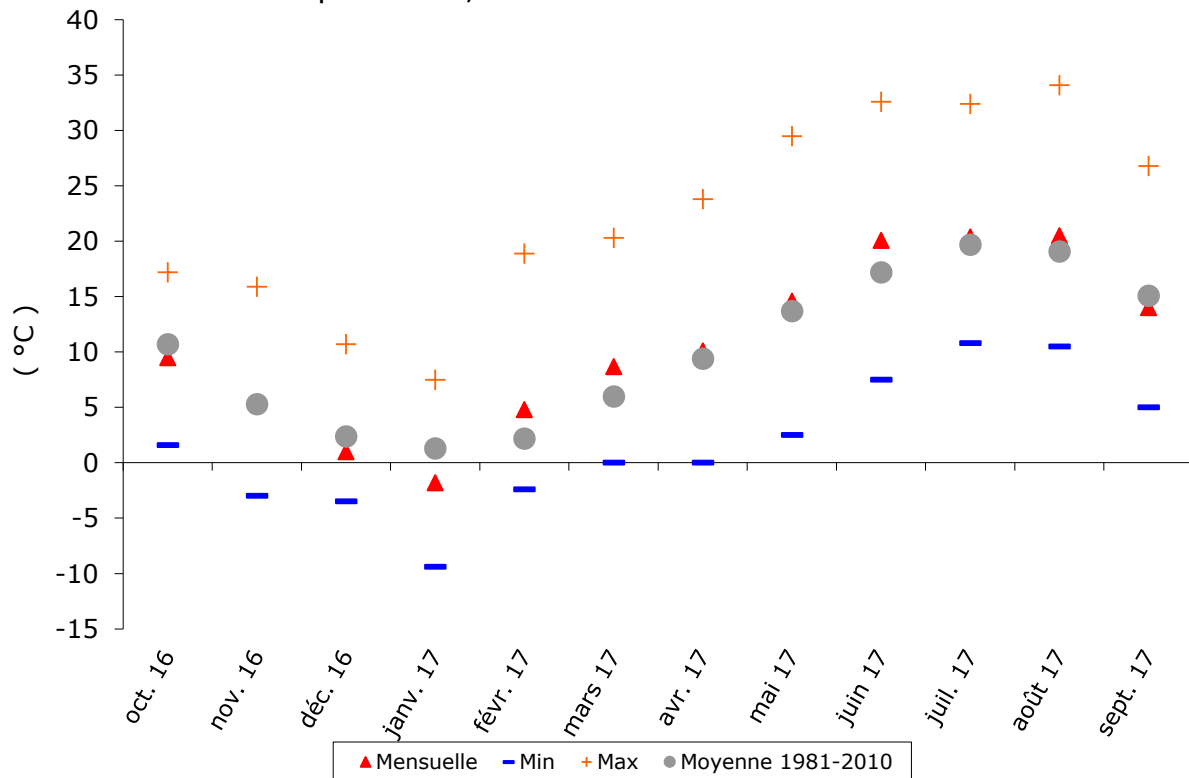
## Météo selon les lieux d'essai en 2017 - Giez, Alt. : 580 m

(Les moyennes de 30 ans sont celles de Changins; les données annuelles sont celles de Champagne)

### Précipitations, saison 2016 - 2017



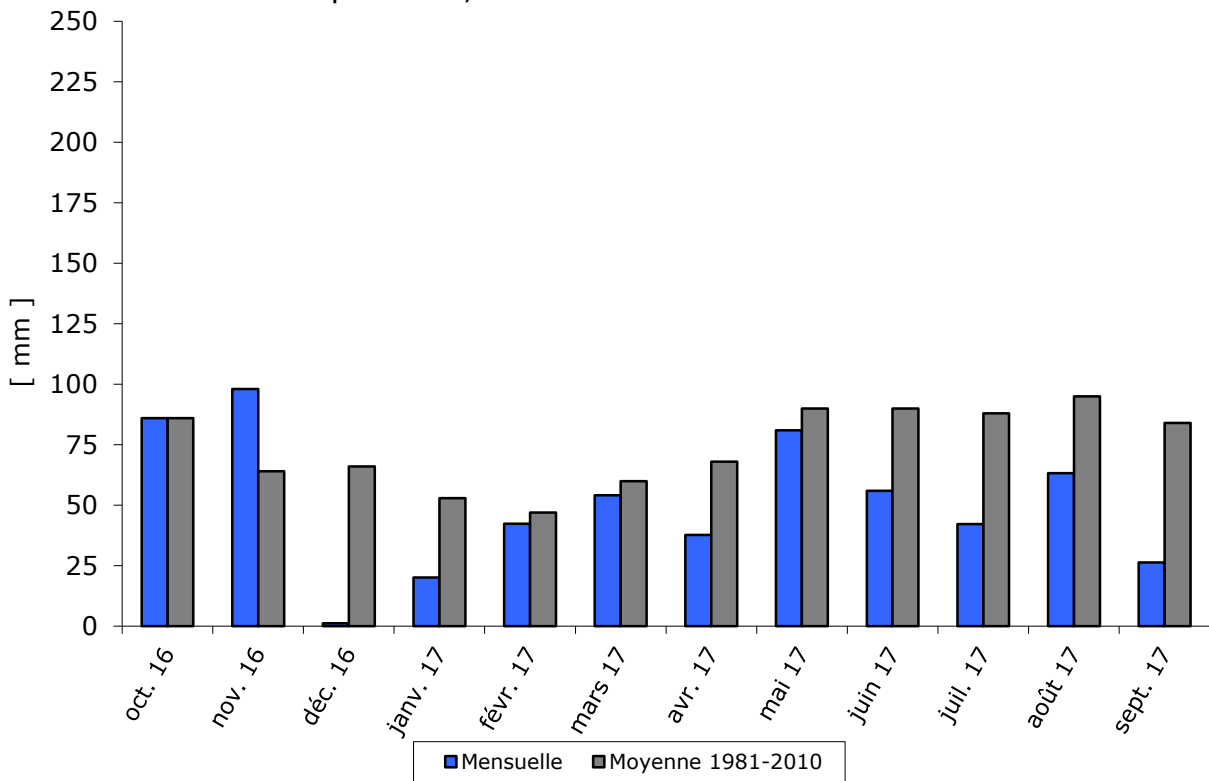
### Températures, saison 2016 - 2017



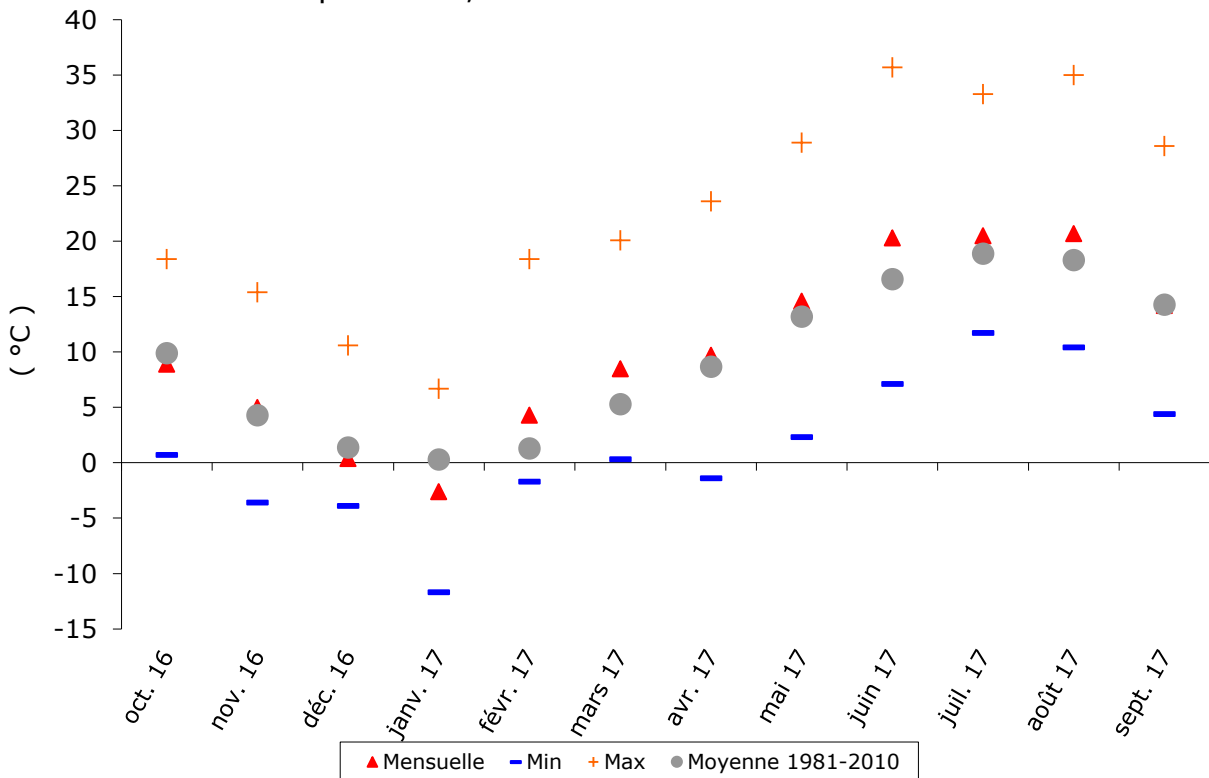
# Météo selon les lieux d'essai en 2017 - Delley, Alt. : 500 m

(Les moyennes de 30 ans sont celles de Payerne)

## Précipitations, saison 2016 - 2017



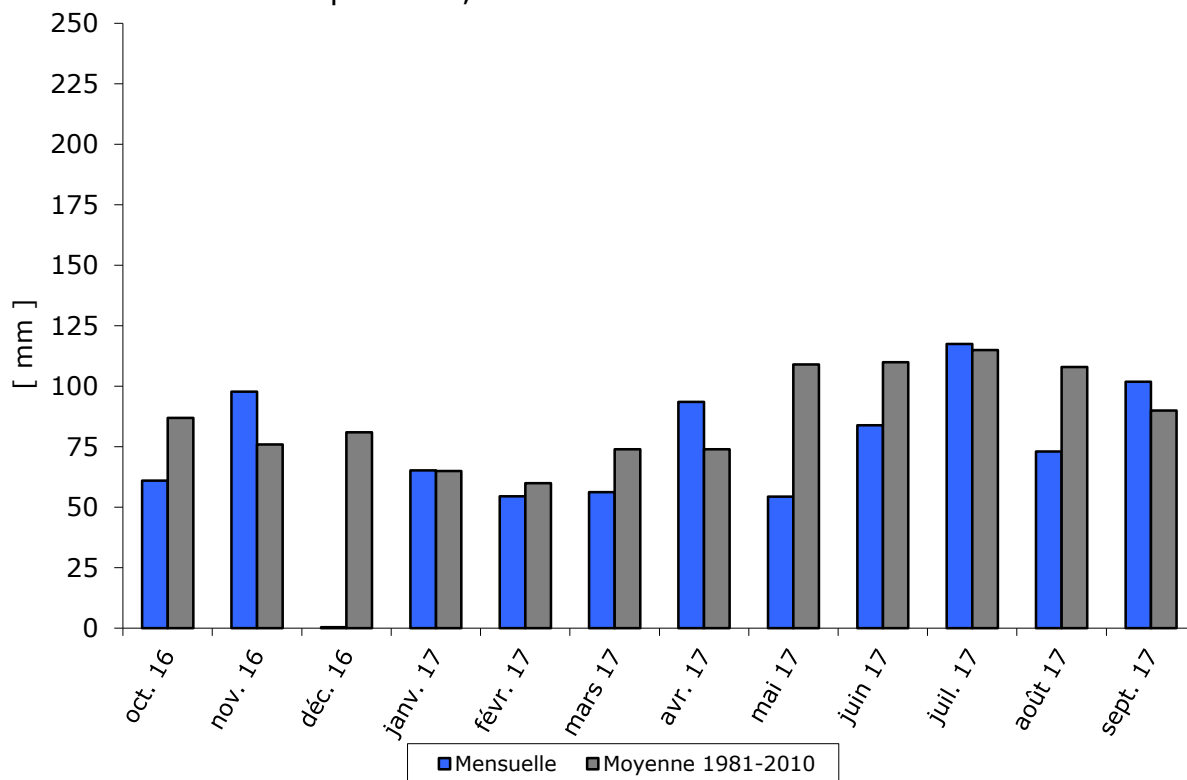
## Températures, saison 2016 - 2017



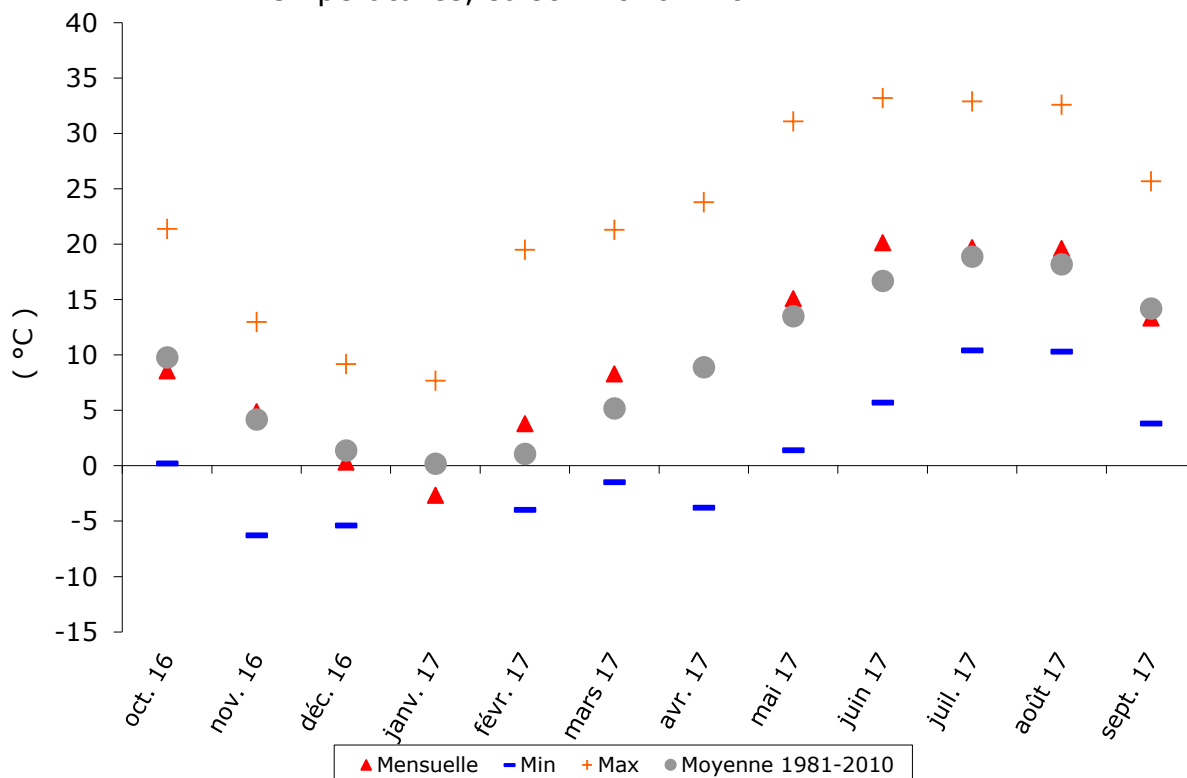
## Météo selon les lieux d'essai en 2017 - Reckenholz, Alt. : 420 m

(Les moyennes de 30 ans sont celles de Zürich-Kloten)

### Précipitations, saison 2016 - 2017



### Températures, saison 2016 - 2017



## Données expérimentales / Versuchsangaben

Lieu <i>Standort</i>	Changins VD - 1260	Goumoens VD - 1376	Giez VD - 1429	Delley FR - 1567	Reckenholz ZH - 8046
Altitude <i>Höhe ü. M.</i>	420 m	609 m	600m	500 m	440 m
Date de semis <i>Saat Datum</i>	18.05.17	29.05.17	17.05.17	15.05.17	13.05.17
Date de récolte <i>Ernte Datum</i>	05.09.17	Essai abandonné Phytotoxicité Herbicide	21.09.17	22.09.17	09.10.17
Densité de semis <i>Saadichte</i>	55 grains/m <sup>2</sup>	55 grains/m <sup>2</sup>	55 grains/m <sup>2</sup>	55 grains/m <sup>2</sup>	55 grains/m <sup>2</sup>
Surface parcelles <i>Parzellenfläche</i>	11,65 m <sup>2</sup>	11,65 m <sup>2</sup>	11,65 m <sup>2</sup>	10,00 m <sup>2</sup>	12.30 m <sup>2</sup>
Surface récoltée <i>Geerntete Oberfläche</i>	10,05 m <sup>2</sup>	10,05 m <sup>2</sup>	10,05 m <sup>2</sup>	8.1 m <sup>2</sup>	selon mesures individuelles
Interlignes <i>Reihenabstand</i>	50 cm	50 cm	50 cm	50 cm	21.5 cm
Précédent <i>Vorfrucht</i>	Blé de printemps	Orge de printemps / Engrais vert UFA Alpha	Blé d'automne	Céréales	Blé de printemps / Engrais vert UFA Alpha
Inoculation <i>Impfung</i>	Oui	Oui	Oui	Oui	Oui
Dispositif <i>Dispositif</i>	Blocs randomisés	Blocs randomisés	Blocs randomisés	Blocs randomisés	Blocs randomisés
Répétitions <i>Wiederholungen</i>	4	4	4	4	4
Désherbage pré-levée <i>Vorauflauf Herbizid</i>	Frontier X2 : 1.2 l/ha Bolero : 0.8 l/ha	Frontier X2 : 1.2 l/ha Bolero : 0.8 l/ha	Linutop : 1 l/ha Dual Gold : 2 l/ha	Frontier X2 : 1.2 l/ha Molipan Pro : 0.3 kg/ha	Frontier X2 : 1.2 l/ha Bolero : 0.8 l/ha
Désherbage post-levée <i>Nachlauf Herbizid</i>	-	-	Bolero : 0.8 l/ha Basagran SG : 0.8 kg/ha	Bolero : 0.8 l/ha Basagran SG : 0.8 kg/ha	-
Répulsif lièvre	-	-	clôture	-	-
Insecticides <i>Insektizid</i>	-	-	-	-	-
Sarclage <i>Hacken</i>	oui	oui	non	non	non
Irrigation <i>Bewässerung</i>	oui	non	non	oui	non
Remarques <i>Bemerkungen</i>	Parcelle 5	Parcelle 5	-	-	Parcelle 107



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## Variétés / Sorten 2017

Réseau sur les sites Changins, Goumoens, Giez, Delley et Reckenholz

Noms Namen	N° Nr.	Précocité Frühreife	Obtenteur Züchter	Statut Statut	Début des tests Beginn der testen	LR Suisse ESL Schweiz
Maple Arrow		00	CFIAHPD	std précocité 00	1979	---
Merlin		000	Saatbau Linz	std précocité 000	2004	2007
Gallec	21507	000	Agroscope/DSP	std précocité 000	1997	2000
Galice	22177	000/00	Agroscope/DSP	std précocité 000/00	2013	2016
Opaline	21990	00	Agroscope/DSP	std précocité 00	2006	2009
Tourmaline	22161	000/00	Agroscope/DSP	std précocité 00	2010	2013
Xena	22412	000/00	Agroscope/DSP	HV2	2016	---
Aveline	21715	000/00	Agroscope/DSP	comparaison	2002	2005
Amandine	22138	000/00	Agroscope/DSP	comparaison	2016	---
Protéix	21912	00	Agroscope/DSP	comparaison	2006	2009
Falbala	22144	00	Agroscope/DSP	comparaison	2011	2014
Obélix	22172	000/00	Agroscope/DSP	comparaison	2011	2014
SZD5729			Saatbau Linz	1 <sup>ère</sup> année LR	2017	---
Toutatis	22232	000/00	Agroscope/DSP	comparaison	2012	2016
Kalinka	22321	000/00	Agroscope/DSP	comparaison	2015	---
Abelina		000	Saatbau Linz	4 <sup>ème</sup> année LR	2014	---

## Précocité

2009 - 2017											Jours	Groupe	Jours	
Nom variété	réf.	2009	2010	2011	2012	2013	2014	2015	2016	2017	Moy	référence	Précocité	anciens
Merlin		-7.5	-5.9	-6.2	-9.8	-8.3	-7.6	-6.9	-5.0	-6.0	-7.0	-7	000	-7
<b>Gallec</b>	<b>-6</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6.0</b>	<b>-6</b>	<b>000</b>	<b>-6</b>
Galice						-1.5	-2.1	0.9	0.2	1.4	-0.2	0	000/00	-1
Opaline		0.7	-0.2	2.7	0.7	0.0	1.7	-1.6	0.1	-2.4	0.2	0	00	1
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0</b>	<b>00</b>	<b>0</b>
Tourmaline			-0.7	-1.4	0.4	0.3	-1.3	0.2	-0.7	1.4	-0.2	0	00	0
Aveline		-4.3	-1.7	-3.9	-3.7	-3.7	-2.9	-5.9	-3.0	-6.6	-4.0	-4	000/00	-4
Amandine		-4.8	-3.1	-5.6	-6.0	-3.3			-1.8	-2.2	-3.8	-4	000/00	-4
Protéix		-1.3	2.6	2.3	2.1	1.0	2.0	0.6	1.9	1.4	1.4	2	00	1
Falbala				-0.2	3.2	4.0	3.1	1.0	3.6	4.2	2.7	3	00	2
Obélix				-3.3	-4.2	-6.0	-5.9	-3.2	-3.7	-2.6	-4.1	-4	000/00	-4
Toutatis					-4.4	-5.8	-4.4	-4.3	-3.7	-4.0	-4.4	-4	000/00	-5
Abelina							-6.5	-6.3	-5.0	0.2	-4.4	-5	000	-6
Kalinka								-2.3	-1.0	-2.2	-1.8	-2	000/00	-2
Xena								-2.4	-1.5	-3.0	-2.3	-2	000/00	-2
SZD5729										-1.0	-1.0	-1	000/00	

2009	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-10.5	-5.8	-8.1	-7.5
<b>Gallec</b>	<b>-6</b>	<b>-9.5</b>	<b>-3.5</b>	<b>-6.5</b>	<b>-6.0</b>
Aveline		-6.8	-2.5	-4.6	-4.3
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Tolimán		2.3	0.5	1.4	1.3
Amphor		0.3	-0.3	0.0	0.0
London		2.0	6.3	4.1	3.8
Cataline		4.0	1.5	2.8	2.5
Protéix		-3.8	1.0	-1.4	-1.3
Opaline		1.0	0.5	0.8	0.7
Pollux		-4.0	2.5	-0.8	-0.7
Amandine		-8.0	-2.5	-5.3	-4.8

2010	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-8.8	-3.5	-5.8	-6.0
<b>Gallec</b>	<b>-6</b>	<b>-8.0</b>	<b>-5.5</b>	<b>-4.8</b>	<b>-6.1</b>
Aveline		-1.3	-3.3	-0.5	-1.7
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Amphor		-1.0	0.3	2.8	0.7
London		4.3	1.0	1.0	2.1
Protéix		4.0	2.5	1.5	2.7
Opaline		0.0	-1.5	1.0	-0.2
Pollux		4.0	1.0	1.5	2.2
Amandine		-2.8	-3.8	-2.8	-3.1
Tourmaline		-2	-1	0.8	-0.7
Protibus		-7.8	-6.5	-4.5	-6.3
Lissabon		-1	1	-2	-0.7

2011	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin			-8.0	-8.0	-6.2
<b>Gallec</b>	<b>-6</b>		<b>-7.8</b>	<b>-7.8</b>	<b>-6.0</b>
Aveline			-5.0	-5.0	-3.9
<b>Maple Arrow</b>	<b>0</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Amphor			0.5	0.5	0.4
London			3.3	3.3	2.5
Protéix			3.0	3.0	2.3
Opaline			3.5	3.5	2.7
Pollux			0.5	0.5	0.4
Amandine			-7.25	-7.25	-5.6
Tourmaline			-1.75	-1.75	-1.4
Protibus			-4.5	-4.5	-3.5
Lissabon			-3	-3	-2.3
Falbala			-0.3	-0.3	-0.2
Obélix			-4.3	-4.3	-3.3

2012	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-10.8	-9.3	-10.0	-9.8
<b>Gallec</b>	<b>-6</b>	<b>-5.3</b>	<b>-7.0</b>	<b>-6.1</b>	<b>-6.0</b>
Aveline		-4.3	-3.3	-3.8	-3.7
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Amphor		0.0	1.8	0.9	0.9
London		0.5	5.5	3.0	2.9
Protéix		0.3	4.0	2.1	2.1
Opaline		1.3	0.3	0.8	0.7
Pollux		2.3	-0.5	0.9	0.9
Amandine		-6.0	-6.3	-6.1	-6.0
Tourmaline		1.0	-0.3	0.4	0.4
Protibus		-2.3	-5.0	-3.6	-3.6
Lissabon		-0.8	-1.5	-1.1	-1.1
Falbala		3.8	2.8	3.3	3.2
Obélix		-4.0	-4.5	-4.3	-4.2
22164		4.8	6.3	5.5	5.4
Coraline		5.8	5.3	5.5	5.4
22232		-4.3	-4.8	-4.5	-4.4
Tequila		5.0	4.3	4.6	4.5
Malaga		1.8	1.0	1.4	1.3

2013	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-5.5	-7.0	-6.3	-8.3
<b>Gallec</b>	<b>-6</b>	<b>-4.5</b>	<b>-4.5</b>	<b>-4.5</b>	<b>-6.0</b>
Aveline		-2.0	-3.5	-2.8	-3.7
Lissabon		-3.8	-1.8	-2.8	-3.7
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Opaline		-0.3	0.3	0.0	0.0
Amphor		-2.8	-0.8	-1.8	-2.3
Protéix		0.8	0.8	0.8	1.0
London		1.5	1.5	1.5	2.0
Amandine		-1.8	-3.3	-2.5	-3.3
Tourmaline		1.5	-1.0	0.3	0.3
Falbala		2.0	4.0	3.0	4.0
Obélix		-4.5	-4.5	-4.5	-6.0
22164		1.8	2.5	2.1	2.8
Coraline		0.5	0.8	0.6	0.8
22232		-4.3	-4.5	-4.4	-5.8
Tequila		2.8	0.5	1.6	2.2
Malaga		-2.8	-0.8	-1.8	-2.3
22177		-1.3	-1.0	-1.1	-1.5
22216		-3.5	-3.5	-3.5	-4.7

2014	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-12.0	-11.3	-15.0	-12.8
<b>Gallec</b>	<b>-6</b>	<b>-10.5</b>	<b>-7.3</b>	<b>-12.5</b>	<b>-10.1</b>
Aveline		-7.8	-1.0	-5.8	-4.8
Lissabon		0.0	0.0	0.0	0.0
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Opaline		2.0	6.8	0.0	2.9
Amphor		-0.5	2.0	0.3	0.6
Protéix		0.8	5.5	4.0	3.4
Tourmaline		-5.0	3.8	-5.3	-2.2
Falbala		2.8	7.8	5.0	5.2
Obélix		-8.5	-8.5	-12.8	-9.9
22164		3.0	6.0	1.8	3.6
Coraline		1.0	6.5	4.0	3.8
22232		-8.5	-4.5	-9.0	-7.3
Tequila		-0.3	3.3	3.0	2.0
Malaga		3.0	4.5	4.3	3.9
22177		-7.0	1.8	-5.5	-3.6
22267		4.0	8.8	5.8	6.2
Abelina		-11.0	-8.3	-13.8	-11.0
SY Livius		3.3	5.3	6.8	5.1

2015	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-8.8	-9.0	-5.8	-7.8
<b>Gallec</b>	<b>-6</b>	<b>-6.9</b>	<b>-8.5</b>	<b>-5.0</b>	<b>-6.8</b>
Aveline		-5.5	-7.8	-6.8	-6.7
Lissabon		-4.6	-3.5	0.5	-2.5
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Obélix		-5.3	-5.0	-0.8	-3.7
Tourmaline		-1.0	1.3	0.5	0.3
Opaline		-2.9	-0.3	-2.3	-1.8
Amphor		-1.8	-1.0	1.3	-0.5
Protéix		0.3	-0.5	2.3	0.7
Falbala		1.8	-1.0	2.8	1.2
Toutatis		-7.0	-4.8	-3.0	-4.9
Coraline		1.0	-1.0	2.5	0.8
Tequila		4.0	3.3	4.5	3.9
Galice		0.5	-0.5	3.0	1.0
Abelina		-7.8	-7.5	-6.3	-7.2
SY Livius		1.8	1.3	5.5	2.8
Amadea		-0.8	0.3	3.8	1.1
22321		-3.3	-3.0	-1.5	-2.6
22412		-1.5	-5.5	-1.3	-2.8
Tiguan		-12.0	-10.8	-12.5	-11.8

2016	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-5.0	-8.8	-2.0	-5.3
<b>Gallec</b>	<b>-6</b>	<b>-6.0</b>	<b>-9.8</b>	<b>-3.0</b>	<b>-6.3</b>
Lissabon		1.3	-2.0	-0.3	-0.3
Opaline		-1.3	2.8	-1.3	0.1
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Tourmaline		-2.8	-0.3	0.8	-0.8
Aveline		-6.0	-0.5	-3.0	-3.2
Obélix		-4.5	-4.5	-2.5	-3.8
Protéix		1.5	4.0	0.5	2.0
Falbala		0.8	5.0	5.5	3.8
Toutatis		-3.8	-5.8	-2.0	-3.8
Tequila		2.0	4.5	6.8	4.4
Galice		1.3	-0.5	0.0	0.3
Abelina		-3.0	-9.3	-3.5	-5.3
Amadea		2.3	4.8	5.3	4.1
Regina		1.5	-2.0	1.5	0.3
Amandine		-1.5	-4.3	0.3	-1.8
22321		-2.5	-1.3	0.8	-1.0
22412		0.3	-4.8	-0.3	-1.6
22436		-0.5	-5.3	-0.8	-2.2
Tiguan		-11.5	-11.0	-5.5	-9.3

2017	Changins	Goumoens	Giez	MOYENNE	Précocité
Merlin		-0.5	-7.0	-3.8	-6.0
<b>Gallec</b>	<b>-6</b>	<b>-2.0</b>	<b>-5.5</b>	<b>-3.8</b>	<b>-6.0</b>
Galice		1.5	0.3	0.9	1.4
Opaline		-1.3	-1.8	-1.5	-2.4
<b>Maple Arrow</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Tourmaline		0.5	1.3	0.9	1.4
Xena		-0.5	-3.3	-1.9	-3.0
Aveline		-2.0	-6.3	-4.1	-6.6
Amandine		0.8	-3.5	-1.4	-2.2
Protéix		1.5	0.3	0.9	1.4
Falbala		2.0	3.3	2.6	4.2
Obélix		0.3	-3.5	-1.6	-2.6
SZD5729		2.8	-4.0	-0.6	-1.0
Toutatis		-1.3	-3.8	-2.5	-4.0
Kalinka		-0.3	-2.5	-1.4	-2.2
Abelina		3.0	-2.8	0.1	0.2

## Résultats Soja 2017

### Rendement à 11% H2O, dt/ha

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	24.5		40.3	35.3	47.5	36.9
Merlin	000	23.5		40.1	38.0	50.5	38.0
Gallec	000	27.0		38.4	38.5	46.5	37.6
Galice	000/00	26.3		43.3	42.3	50.2	40.5
Opaline	00	25.7		42.6	41.5	52.5	40.6
Tourmaline	00	24.7		41.0	40.2	48.7	38.6
Xena	000/00	25.3		42.9	43.2	52.5	41.0
Aveline	000/00	22.0		34.2	36.7	44.9	34.5
Amandine	000/00	22.7		36.8	39.3	49.5	37.1
Protéix	00	24.8		41.4	41.4	49.8	39.4
Falbala	00	20.7		40.6	39.5	46.8	36.9
Obélix	000/00	26.6		38.7	41.0	50.3	39.2
SZD5729	000/00	26.8		45.3	42.6	49.6	41.1
Toutatis	000/00	26.8		40.8	40.0	54.0	40.4
Kalinka	000/00	25.2		41.4	44.0	50.6	40.3
Abelina	000	24.7		45.1	43.3	51.1	41.0
Témoins 000		25.2		39.2	38.3	48.5	37.8
Témoins 000/00		26.3		43.3	42.3	50.2	40.5
Témoins 00		25.2		41.8	40.9	50.6	39.6
Moy. témoins		25.6		41.5	40.5	49.8	39.3

### Rendement en valeurs relatives à la durée de végétation, %

Variété	Jours	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	0.0	99.8		97.2	86.7	95.8	94.9
Merlin	-7.0	92.4		102.2	95.6	100.9	97.8
Gallec	-6.0	106.9		97.0	96.6	93.1	98.4
Galice	0.0	106.9		104.4	103.8	101.3	104.1
Opaline	0.0	104.5		102.7	102.0	106.0	103.8
Tourmaline	0.0	100.5		98.8	98.7	98.3	99.1
Xena	-2.0	102.1		105.0	106.8	105.7	104.9
Aveline	-4.0	88.0		85.0	91.4	90.1	88.6
Amandine	-4.0	90.7		91.5	97.9	99.4	94.9
Protéix	2.0	101.8		98.3	100.9	100.9	100.5
Falbala	3.0	85.3		95.6	96.0	94.9	93.0
Obélix	-4.0	106.4		96.4	102.1	100.9	101.5
SZD5729	-1.0	108.4		110.0	104.9	100.0	105.8
Toutatis	-4.0	106.8		101.5	99.6	108.4	104.1
Kalinka	-2.0	101.5		101.4	108.9	101.8	103.4
Abelina	-5.0	98.0		113.0	108.1	102.3	105.4
Témoins 000		99.6		99.6	96.1	97.0	98.1
Témoins 000/00		106.9		104.4	103.8	101.3	104.1
Témoins 00		102.5		100.8	100.4	102.2	101.4
Moy. témoins		103.0		101.6	100.1	100.2	101.2

## Résultats Soja 2017

### Rendement en valeurs relatives au groupe de précocité, %

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	97.4		96.5	86.4	93.8	93.5
Merlin	000	93.0		102.2	99.3	104.1	99.6
Gallec	000	107.0		97.8	100.7	95.9	100.4
Galice	000/00	100.0		100.0	100.0	100.0	100.0
Opaline	00	101.9		101.9	101.6	103.8	102.3
Tourmaline	00	98.1		98.1	98.4	96.2	97.7
Xena	000/00	96.4		99.0	102.2	104.6	100.6
Aveline	000/00	83.9		78.9	86.8	89.4	84.8
Amandine	000/00	86.5		84.9	93.1	98.7	90.8
Protéix	00	98.4		99.1	101.2	98.5	99.3
Falbala	00	82.1		97.2	96.6	92.5	92.1
Obélix	000/00	101.4		89.4	97.1	100.2	97.0
SZD5729	000/00	101.9		104.6	100.7	98.9	101.5
Toutatis	000/00	101.9		94.2	94.6	107.6	99.6
Kalinka	000/00	95.8		95.6	104.2	100.8	99.1
Abelina	000	97.7		114.9	113.1	105.3	107.7
Témoins 000		100.0		100.0	100.0	100.0	100.0
Témoins 000/00		100.0		100.0	100.0	100.0	100.0
Témoins 00		100.0		100.0	100.0	100.0	100.0
Moy. témoins		100.0		100.0	100.0	100.0	100.0

### Humidité au triage, % H2O

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	7.5		7.0	9.2	12.2	9.0
Merlin	000	6.8		6.0	9.0	13.0	8.7
Gallec	000	7.5		7.0	9.4	12.3	9.0
Galice	000/00	7.7		6.7	9.8	12.0	9.0
Opaline	00	7.3		6.5	10.0	12.0	8.9
Tourmaline	00	7.6		6.8	10.2	11.8	9.1
Xena	000/00	7.7		6.6	10.1	12.5	9.2
Aveline	000/00	7.2		6.5	10.2	12.5	9.1
Amandine	000/00	7.5		6.2	10.4	11.8	9.0
Protéix	00	7.4		6.3	10.4	13.4	9.4
Falbala	00	7.5		6.5	10.3	12.5	9.2
Obélix	000/00	7.9		6.6	10.0	12.3	9.2
SZD5729	000/00	7.5		6.8	10.2	12.7	9.3
Toutatis	000/00	7.1		6.2	10.1	12.4	8.9
Kalinka	000/00	7.6		7.1	9.9	12.3	9.2
Abelina	000	6.8		6.0	9.4	12.2	8.6
Témoins 000		7.1		6.5	9.2	12.6	8.8
Témoins 000/00		7.7		6.7	9.8	12.0	9.0
Témoins 00		7.4		6.6	10.1	11.9	9.0
Moy. témoins		7.4		6.6	9.7	12.2	9.0

## Résultats Soja 2017

### Poids de 1000 grains, g

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	219		215	242	195	217
Merlin	000	219		197	206	191	203
Gallec	000	195		213	235	189	208
Galice	000/00	191		222	228	204	211
Opaline	00	187		208	218	213	206
Tourmaline	00	218		217	242	198	219
Xena	000/00	185		207	222	202	204
Aveline	000/00	205		210	234	219	217
Amandine	000/00	187		196	219	197	200
Protéix	00	189		190	215	180	193
Falbala	00	198		194	224	189	201
Obélix	000/00	226		255	269	207	240
SZD5729	000/00	210		226	247	202	221
Toutatis	000/00	180		211	216	216	205
Kalinka	000/00	185		192	219	216	203
Abelina	000	198		210	217	206	208
Témoins 000		207		205	220	190	206
Témoins 000/00		191		222	228	204	211
Témoins 00		202		213	230	205	213
Moy. témoins		200		213	226	200	210

### Verse à la récolte, note (1 = dressé)

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	1.0		2.0	6.3	6.0	3.8
Merlin	000	1.0		1.0	5.0	5.8	3.2
Gallec	000	1.0		1.0	5.5	5.0	3.1
Galice	000/00	1.0		1.0	5.0	4.1	2.8
Opaline	00	1.0		1.3	6.0	5.0	3.3
Tourmaline	00	1.3		2.5	6.8	5.1	3.9
Xena	000/00	1.0		1.3	4.5	3.5	2.6
Aveline	000/00	1.0		1.0	5.3	5.8	3.3
Amandine	000/00	1.0		1.0	4.5	5.1	2.9
Protéix	00	1.0		1.3	5.5	5.3	3.3
Falbala	00	1.0		2.0	5.0	5.3	3.3
Obélix	000/00	1.0		1.0	4.3	3.5	2.4
SZD5729	000/00	1.0		1.3	5.5	6.0	3.4
Toutatis	000/00	1.0		1.0	4.0	5.9	3.0
Kalinka	000/00	1.0		1.5	6.0	3.1	2.9
Abelina	000	1.0		2.3	6.3	4.6	3.5
Témoins 000		1.0		1.0	5.3	5.4	3.2
Témoins 000/00		1.0		1.0	5.0	4.1	2.8
Témoins 00		1.1		1.9	6.4	5.1	3.6
Moy. témoins		1.0		1.3	5.5	4.9	3.2

## Résultats Soja 2017

### Teneur en protéines, % MS

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	45.0		43.1	42.8	41.9	43.2
Merlin	000	45.0		42.3	41.4	42.3	42.7
Gallec	000	45.5		43.9	43.1	43.6	44.0
Galice	000/00	44.0		41.7	41.3	43.2	42.6
Opaline	00	43.7		42.0	41.9	42.1	42.4
Tourmaline	00	45.2		42.5	43.0	42.2	43.2
Xena	000/00	44.0		42.2	41.0	42.3	42.4
Aveline	000/00	47.1		45.5	44.3	44.9	45.5
Amandine	000/00	45.8		43.5	43.6	43.9	44.2
Protéix	00	47.2		45.7	46.5	46.4	46.5
Falbala	00	50.6		47.7	48.8	48.6	48.9
Obélix	000/00	46.2		43.4	43.9	44.3	44.4
SZD5729	000/00	47.0		45.5	46.4	46.6	46.4
Toutatis	000/00	43.1		41.6	40.5	41.8	41.8
Kalinka	000/00	44.8		42.6	42.4	41.9	42.9
Abelina	000	45.8		43.7	42.6	41.8	43.5
Témoins 000		45.2		43.1	42.2	42.9	43.4
Témoins 000/00		44.0		41.7	41.3	43.2	42.6
Témoins 00		44.4		42.3	42.4	42.1	42.8
Moy. témoins		44.6		42.4	42.0	42.7	42.9

### Teneur en protéines en valeur relative, %

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	101.2		101.9	100.8	99.5	100.9
Merlin	000	99.4		98.2	98.0	98.5	98.5
Gallec	000	100.6		101.8	102.0	101.5	101.5
Galice	000/00	100.0		100.0	100.0	100.0	100.0
Opaline	00	98.3		99.3	98.8	99.9	99.1
Tourmaline	00	101.7		100.7	101.2	100.1	100.9
Xena	000/00	99.8		101.1	99.3	97.9	99.5
Aveline	000/00	107.0		108.9	107.2	104.0	106.8
Amandine	000/00	104.1		104.1	105.5	101.6	103.8
Protéix	00	106.3		108.3	109.7	110.2	108.6
Falbala	00	114.0		113.0	115.0	115.3	114.3
Obélix	000/00	104.8		103.9	106.1	102.6	104.3
SZD5729	000/00	106.6		109.0	112.4	108.0	109.0
Toutatis	000/00	97.8		99.6	98.1	96.9	98.1
Kalinka	000/00	101.6		102.1	102.6	97.1	100.9
Abelina	000	101.3		101.4	100.9	97.3	100.2
Témoins 000		100		100	100	100	100
Témoins 000/00		100		100	100	100	100
Témoins 00		100		100	100	100	100
Moy. témoins		100		100	100	100	100

# Résultats Soja 2017

## Teneur en huile, % MS

Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	20.1		20.9	20.9	21.1	20.7
Merlin	000	20.1		21.4	21.2	21.6	21.1
Gallec	000	20.4		20.6	20.3	20.8	20.5
Galice	000/00	20.5		21.4	21.4	21.1	21.1
Opaline	00	20.9		21.1	22.1	21.4	21.4
Tourmaline	00	20.8		20.7	22.2	21.5	21.3
Xena	000/00	21.4		21.2	21.9	21.3	21.5
Aveline	000/00	20.0		20.4	20.4	20.5	20.3
Amandine	000/00	20.6		20.7	21.5	20.6	20.9
Protéix	00	19.7		19.9	20.0	19.7	19.8
Falbala	00	18.5		18.9	19.3	19.2	19.0
Obélix	000/00	20.5		21.2	21.5	21.0	21.0
SZD5729	000/00	19.6		20.0	20.4	19.7	19.9
Toutatis	000/00	21.1		21.5	22.4	21.8	21.7
Kalinka	000/00	21.0		21.5	21.9	21.5	21.5
Abelina	000	20.6		21.3	21.5	21.5	21.2
Témoins 000		20.3		21.0	20.8	21.2	20.8
Témoins 000/00		20.5		21.4	21.4	21.1	21.1
Témoins 00		20.9		20.9	22.1	21.5	21.4
Moy. témoins		20.5		21.1	21.4	21.3	21.1

## Teneur en huile en valeur relative, %

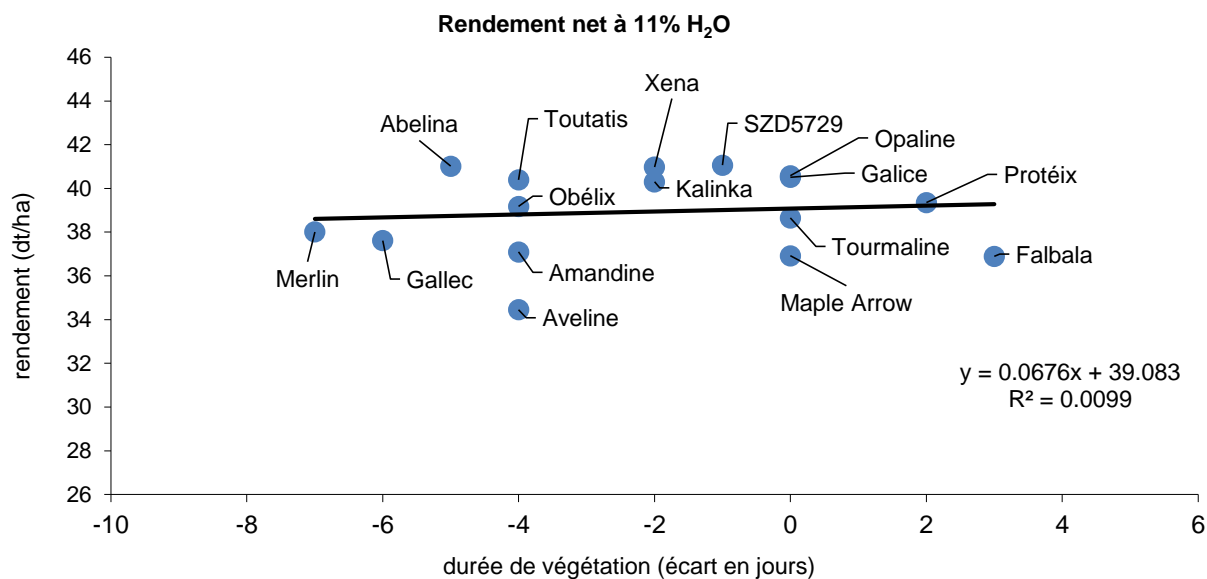
Variété	Groupe	Changins 2017	Goumoëns 2017	Giez 2017	Delley 2017	Reckenholz 2017	Moyenne 2017
Maple Arrow	00	96.4		99.7	94.3	98.2	97.2
Merlin	000	99.2		101.8	102.1	102.0	101.3
Gallec	000	100.8		98.2	97.9	98.0	98.7
Galice	000/00	100.0		100.0	100.0	100.0	100.0
Opaline	00	100.3		101.0	99.8	99.8	100.2
Tourmaline	00	99.7		99.0	100.2	100.2	99.8
Xena	000/00	104.5		99.3	102.7	100.9	101.8
Aveline	000/00	97.8		95.4	95.4	97.3	96.5
Amandine	000/00	100.7		97.0	100.5	97.8	99.0
Protéix	00	94.3		95.1	90.2	91.7	92.8
Falbala	00	88.7		90.1	86.9	89.5	88.8
Obélix	000/00	100.1		99.3	100.5	99.6	99.9
SZD5729	000/00	95.8		93.4	95.6	93.5	94.6
Toutatis	000/00	103.0		100.6	104.8	103.1	102.9
Kalinka	000/00	102.8		100.8	102.6	102.1	102.1
Abelina	000	101.6		101.3	103.3	101.5	102.0
Témoins 000		100		100	100	100	100
Témoins 000/00		100		100	100	100	100
Témoins 00		100		100	100	100	100
Moy. témoins		100		100	100	100	100



# Synthèse Soja 2017

Synthèse 2017	Durée végétation écart en jours	Groupe précocité	Rdt. net	Rdt relatif durée	Rdt relatif groupe	Verse	PMG	Protéines	Protéines val. rel.	Huile	Huiles val. rel.
			11 % H2O dt/ha	végétation %	précocité %	(1=dressé) note					
Maple Arrow	0	00	36.9	95	94	3.8	217	43.2	101	20.7	97
Merlin	-7	000	38.0	98	100	3.2	203	42.7	99	21.1	101
Gallec	-6	000	37.6	98	100	3.1	208	44.0	101	20.5	99
Galice	0	000/00	40.5	104	100	2.8	211	42.6	100	21.1	100
Opaline	0	00	40.6	104	102	3.3	206	42.4	99	21.4	100
Tourmaline	0	00	38.6	99	98	3.9	219	43.2	101	21.3	100
Xena	-2	000/00	41.0	105	101	2.6	204	42.4	100	21.5	102
Aveline	-4	000/00	34.5	89	85	3.3	217	45.5	107	20.3	96
Amandine	-4	000/00	37.1	95	91	2.9	200	44.2	104	20.9	99
Protéix	2	00	39.4	100	99	3.3	193	46.5	109	19.8	93
Falbala	3	00	36.9	93	92	3.3	201	48.9	114	19.0	89
Obélix	-4	000/00	39.2	101	97	2.4	240	44.4	104	21.0	100
SZD5729	-1	000/00	41.1	106	102	3.4	221	46.4	109	19.9	95
Toutatis	-4	000/00	40.4	104	100	3.0	205	41.8	98	21.7	103
Kalinka	-2	000/00	40.3	103	99	2.9	203	42.9	101	21.5	102
Abelina	-5	000	41.0	105	108	3.5	208	43.5	100	21.2	102
Témoins 000			37.8	98.1	100.0	3.2	205.5	43.4	100.0	20.8	100.0
Témoins 000/00			40.5	104.1	100.0	2.8	211.2	42.6	100.0	21.1	100.0
Témoins 00			39.6	101.4	100.0	3.6	212.6	42.8	100.0	21.4	100.0
Moy. témoins			39.3	101.2	100.0	3.2	209.8	42.9	100.0	21.1	100.0

Synthèse 2017	Durée végétation écart en jours	Groupe précocité	Rdt relatif durée	Verse	Protéines val. rel.	Huiles val. rel.	VAT
			végétation %	(bonus)			
Maple Arrow	0	00	95		1	-	96
Merlin	-7	000	98		-	1	99
Gallec	-6	000	98	1	1	-	100
Galice	0	000/00	104		-	-	104
Opaline	0	00	104	1	-	-	105
Tourmaline	0	00	99		1	-	100
Xena	-2	000/00	105	1	-	2	108
Aveline	-4	000/00	89		7	-	96
Amandine	-4	000/00	95		4	-	99
Protéix	2	00	100	1	9	-	110
Falbala	3	00	93	1	14	-	108
Obélix	-4	000/00	101	1	4	-	106
SZD5729	-1	000/00	106		9	-	115
Toutatis	-4	000/00	104		-	3	107
Kalinka	-2	000/00	103		1	2	106
Abelina	-5	000	105		-	2	107



# Résultats Soja 5 ans

## Rendement à 11% H2O, dt/ha

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.		
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017			
Maple Arrow	00	36.5	36.2	38.7	24.5	40.4	31.1	42.6	39.2	35.5	30.3	37.2	30.2	40.3	34.6	36.4	35.2	42.8	35.3	35.0	38.3	50.1	47.5	36.9	33.2	38.0	40.2	36.9	37.0
Merlin	000	35.2	39.3	34.3	23.5	37.9	31.4	39.0	34.8	38.5	33.0	38.6	25.1	40.1	38.8	29.4	36.8	37.4	38.0	29.5	36.3	46.8	50.5	38.4	30.8	37.2	35.7	38.0	36.0
Gallec	000	36.8	37.6	35.6	27.0	40.7	27.8	44.2	35.6	35.5	31.1	37.5	26.7	38.4	39.5	34.2	34.6	37.2	38.5	32.4	36.9	48.1	46.5	38.6	31.4	38.0	36.7	37.6	36.4
Galice	000/00	47.1	43.5	38.5	26.3	44.5	32.4	45.3	41.6	42.2	39.2	46.0	29.9	43.3	43.4	40.1	38.6	39.7	42.3	37.5	44.0	53.0	50.2	43.4	37.3	44.2	40.6	40.5	41.2
Opaline	00	42.7	41.1	40.1	25.7	43.5	37.0	43.1	42.3	41.7	42.0	41.1	29.7	42.6	47.9	39.4	36.5	45.4	41.5	37.7	38.3	55.8	52.5	44.4	39.0	40.3	42.7	40.6	41.4
Tourmaline	00	46.1	37.4	39.9	24.7	42.0	36.2	45.3	37.5	41.1	37.9	43.5	27.7	41.0	44.2	46.8	35.5	41.6	40.2	32.9	38.2	50.1	48.7	42.4	38.5	41.7	39.3	38.6	40.1
Aveline	000/00	35.8	32.6	30.9	22.0	32.0	26.5	36.0	35.4	33.9	31.0	32.4	25.5	34.2	37.5	28.0	28.7	39.2	36.7	30.2	32.3	46.3	44.9	34.4	28.9	33.0	35.5	34.5	33.3
Protéix	00	37.1	41.1	37.4	24.8	42.9	28.2	44.7	36.7	39.7	34.0	45.6	30.8	41.4	41.6	41.1	35.3	41.8	41.4	34.6	40.5	52.4	49.8	41.4	34.5	40.6	39.8	39.4	39.1
Falbala	00	34.1	36.3	37.7	20.7	32.3	23.8	36.3	34.9	33.9	30.0	40.7	27.2	40.6	35.1	36.4	32.4	37.9	39.5	26.9	34.8	48.8	46.8	33.8	29.3	35.6	37.3	36.9	34.6
Obélix	000/00	43.3	41.7	38.7	26.6	40.2	32.6	45.5	38.7	36.2	35.1	42.2	26.2	38.7	44.5	37.1	33.2	40.7	41.0	33.8	37.1	47.2	50.3	40.3	34.6	40.3	38.3	39.2	38.5
Toutatis	000/00	44.1	43.5	36.9	26.8	43.2	32.9	44.7	39.0	36.9	37.1	38.8	25.8	40.8	38.0	40.8	36.0	43.1	40.0	38.0	37.1	52.2	54.0	39.4	37.2	40.1	39.4	40.4	39.3
Témoins 000		36.0	38.4	35.0	25.2	39.3	29.6	41.6	35.2	37.0	32.0	38.0	25.9	39.2	39.2	31.8	35.7	37.3	38.3	31.0	36.6	47.4	48.5	38.5	31.1	37.6	36.2	37.8	36.2
Témoins 000/00		47.1	43.5	38.5	26.3	44.5	32.4	45.3	41.6	42.2	39.2	46.0	29.9	43.3	43.4	40.1	38.6	39.7	42.3	37.5	44.0	53.0	50.2	43.4	37.3	44.2	40.6	40.5	41.2
Témoins 00		44.4	39.2	40.0	25.2	42.7	36.6	44.2	39.9	41.4	39.9	42.3	28.7	41.8	46.1	43.1	36.0	43.5	40.9	35.3	38.2	53.0	50.6	43.4	38.7	41.0	41.0	39.6	40.8
Moy. témoins		42.5	40.4	37.8	25.6	42.2	32.9	43.7	38.9	40.2	37.0	42.1	28.2	41.5	42.9	38.3	36.8	40.2	40.5	34.6	39.6	51.1	49.8	41.8	35.7	40.9	39.3	39.3	39.4

## Rendement en valeurs relatives à la durée de végétation, %

Variété	Jours	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.		
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017			
Maple Arrow	0.0	91.1	92.5	101.8	100.4	100.8	101.0	100.2	102.5	93.1	86.7	89.6	106.6	98.8	85.2	93.5	100.8	104.0	88.6	103.8	100.3	98.3	96.5	93.0	96.3	96.4	102.4	96.1	96.8
Merlin	-7.0	89.8	100.6	98.7	91.1	96.1	100.3	92.3	94.9	105.3	97.9	104.4	99.2	105.1	97.0	90.5	106.9	95.7	98.9	89.4	101.0	98.4	102.1	99.5	94.5	98.9	97.4	99.3	97.9
Gallec	-6.0	93.6	96.3	101.1	105.6	102.9	89.0	104.5	96.6	96.6	92.0	99.6	103.8	99.5	98.5	102.7	100.1	94.4	99.8	98.0	101.8	100.2	94.2	99.3	95.4	99.9	99.2	98.8	98.7
Galice	0.0	117.4	111.1	101.3	107.5	110.9	105.4	106.7	109.0	110.7	112.2	110.8	104.7	106.1	107.0	103.0	110.5	98.5	106.0	111.4	115.0	103.9	102.1	109.5	108.0	112.1	103.1	105.4	107.6
Opaline	0.0	106.4	105.0	105.5	105.1	108.3	120.3	101.4	111.4	109.1	120.2	99.0	104.1	104.4	118.0	101.2	104.5	110.3	104.1	111.8	100.1	109.5	106.8	111.8	113.4	102.3	108.2	105.1	108.2
Tourmaline	0.0	114.9	95.5	105.0	101.1	104.7	117.8	106.5	97.7	107.6	108.5	104.9	96.9	100.4	108.9	120.3	101.7	101.1	100.8	97.8	100.0	98.4	99.0	107.1	111.1	105.6	99.8	100.3	104.8
Aveline	-2.0	90.3	83.5	85.5	87.5	80.5	85.2	85.0	95.0	91.0	90.7	83.4	95.5	86.9	92.9	79.5	82.8	98.1	94.0	90.8	87.6	94.4	91.0	88.1	86.5	85.8	93.7	89.9	88.8
Protéix	2.0	91.9	104.9	96.0	103.0	106.3	92.3	105.0	94.9	102.8	96.4	106.6	104.3	99.6	101.9	100.8	100.8	100.2	102.7	102.1	104.2	100.9	101.5	103.7	97.9	101.7	99.3	101.7	100.8
Falbala	3.0	84.1	92.7	95.7	86.7	79.8	77.9	85.3	89.7	87.2	84.5	93.6	90.8	96.8	85.8	87.1	92.3	90.0	97.4	79.2	88.7	93.1	95.4	84.3	82.2	88.8	91.9	94.1	88.3
Obélix	-4.0	109.2	106.7	107.1	105.8	101.1	104.9	107.5	103.6	97.2	102.5	108.4	98.3	98.5	110.5	105.3	95.9	101.9	105.1	101.5	100.6	96.3	101.9	102.9	103.6	104.3	101.5	102.8	103.0
Toutatis	-4.0	111.4	111.3	102.2	106.2	108.7	105.8	105.5	104.6	99.1	108.4	99.7	96.7	103.8	94.2	115.7	103.8	107.7	102.4	114.2	100.6	106.5	109.5	100.7	111.0	104.2	103.5	105.5	105.0
Témoins 000		91.7	98.4	99.9	98.3	99.5	94.7	98.4	95.8	101.0	95.0	102.0	101.5	102.3	97.7	96.6	103.5	95.1	99.4	93.7	101.4	99.3	98.1	99.4	95.0	99.4	98.3	99.5	98.3
Témoins 000/00		117.4	111.1	101.3	107.5	110.9	105.4	106.7	109.0	110.7	112.2	110.8	104.7	106.1	107.0	103.0	110.5	96.5	106.0	111.4	115.0	103.9	102.1	109.5	108.0	112.1	103.1	105.4	107.6
Témoins 00		110.7	100.3	105.2	103.1	106.5	119.1	103.9	104.5	108.4	114.4	102.0	100.5	102.4	113.5	110.8	103.1	105.7	102.5	104.8	100.0	104.0	102.9	109.5	112.2	103.9	104.0	102.7	106.5
Moy. témoins		106.6	103.3	102.2	103.0	105.6	106.4	103.0	103.1	106.7	107.2	104.9	102.2	103.6	106.1	103.5	105.7	99.1	102.6	103.3	105.5	102.4	101.0	106.1	105.1	105.1	101.8	102.6	104.1

## Rendement en valeurs relatives au groupe de précocité, %

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.			
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017				
Maple Arrow	00	82.3	92.3	96.8	97.4	94.6	84.8	96.4	98.1	85.9	75.8	87.8	105.1	96.5	75.1	84.4	97.8	98.4	86.4	99.0	100.2	94.5	93.8	85.2	86.0	92.9	98.6	93.5	91.2	
Merlin	000	97.7	102.2	98.1	93.0	96.5	106.1	93.8	98.8	104.0	102.9	101.5	96.8	102.2	99.1	92.3	103.2	100.3	99.3	95.2	99.1	98.6	104.1	99.9	99.1	98.5	99.6	99.2	99.2	
Gallec	000	102.3	97.8	101.9	107.0	103.5	93.9	106.2	101.2	96.0	97.1	98.5	103.2	97.8	100.9	107.7	96.8	99.7	100.7	104.8	100.9	101.4	95.9	100.1	100.9	100.0	101.5	100.4	100.8	
Galice	000/00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Opaline	00	96.2	104.8	100.2	101.9	101.7	101.0	97.5	106.5	100.7	105.1	97.1	103.6	101.9	104.0	91.4	101.4	104.4	101.6	106.7	100.1	105.4	103.8	102.1						

# Résultats Soja 5 ans

## Poids de 1000 grains, g

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.		
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017			
Maple Arrow	00	229.8	228.8	224.1	218.7	216.4	231.9	218.2	280.5	199.7	242.7	203.5	185.9	214.6	226.2	328.1	205.2	239.4	241.9	221.1	205.0	274.6	194.8	214.1	255.9	212.3	240.9	217.5	228.1
Merlin	000	185.2	199.2	224.1	218.7	181.0	185.7	192.1	252.4	164.3	183.1	202.4	174.7	196.7	182.3	185.6	168.8	247.5	205.5	174.8	168.4	219.0	191.1	175.9	182.3	183.4	223.6	203.0	193.6
Gallec	000	221.5	216.7	216.1	194.9	210.4	226.8	208.2	234.8	184.9	223.2	212.1	198.5	213.4	209.8	235.6	187.7	234.8	235.2	211.1	194.8	242.4	188.7	201.7	224.2	204.9	225.3	208.1	212.8
Galice	000/00	243.5	217.3	212.3	190.6	208.4	228.0	228.1	252.9	197.9	225.5	222.8	221.0	221.9	213.8	229.9	199.4	241.1	228.4	224.9	212.6	239.4	203.8	206.7	227.1	221.3	233.3	211.2	219.9
Opaline	00	225.7	215.0	211.3	186.8	205.2	217.0	212.1	244.6	197.1	225.6	210.6	214.7	208.4	215.5	227.5	192.2	235.4	218.0	213.4	196.3	259.7	212.5	205.9	220.9	207.4	233.2	206.4	214.8
Tourmaline	00	219.2	220.9	227.3	217.9	209.8	225.3	214.9	272.3	192.3	219.7	214.3	203.9	217.1	206.4	226.6	196.3	247.5	241.9	208.3	191.1	243.2	198.4	202.8	220.0	207.2	238.8	218.8	217.5
Aveline	000/00	233.3	227.4	219.1	205.0	199.3	213.9	194.2	251.5	187.4	220.2	207.1	194.1	210.2	215.9	241.8	191.2	253.8	234.1	235.3	193.0	243.0	218.8	200.9	227.8	203.8	232.3	217.1	216.4
Protéix	00	204.1	209.7	194.3	188.6	180.4	183.9	200.9	268.8	181.2	196.8	205.3	204.6	190.2	193.8	207.9	187.4	230.0	214.9	180.3	185.9	229.8	179.5	185.1	192.2	196.7	225.5	193.3	198.6
Falbala	00	212.1	212.1	203.6	198.5	195.2	199.2	197.8	278.3	183.2	204.0	208.5	217.3	193.8	201.2	221.9	187.2	226.8	223.6	183.8	189.7	248.2	188.8	193.2	202.2	199.1	235.2	201.2	206.2
Obélix	000/00	277.1	251.1	253.5	226.5	239.8	263.4	246.7	267.1	223.0	242.6	248.2	219.0	254.9	249.5	268.1	221.1	268.8	269.4	238.3	204.1	260.6	207.4	237.4	253.1	239.5	253.0	239.5	244.5
Toutatis	000/00	215.8	215.3	218.9	179.8	196.4	219.7	212.5	263.4	182.9	219.5	220.7	207.6	210.5	201.5	218.9	191.3	240.0	215.8	204.8	194.4	246.2	215.9	193.6	215.7	207.0	235.2	205.5	211.4
Témoins 000		203.3	207.9	220.1	206.8	195.7	206.3	200.1	243.6	174.6	203.2	207.3	186.6	205.1	196.0	210.6	178.3	241.2	220.4	192.9	181.6	230.7	189.9	188.8	203.2	194.1	224.4	205.5	203.2
Témoins 000/00		243.5	217.3	212.3	190.6	208.4	228.0	228.1	252.9	197.9	225.5	222.8	221.0	221.9	213.8	229.9	199.4	241.1	228.4	224.9	212.6	239.4	203.8	206.7	227.1	221.3	233.3	211.2	219.9
Témoins 00		222.5	218.0	219.3	202.4	207.5	221.1	213.5	258.4	194.7	222.7	212.5	209.3	212.8	210.9	227.0	194.3	241.4	229.9	210.8	193.7	251.5	205.5	204.4	220.4	207.3	236.0	212.6	216.1
Moy. témoins		223.1	214.4	217.2	199.9	203.9	218.5	213.9	251.6	189.1	217.1	214.2	205.7	213.3	206.9	222.5	190.6	241.2	226.2	209.6	196.0	240.5	199.7	200.0	216.9	207.6	231.3	209.8	213.1

## Verse à la récolte, note (1 = dressé)

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.							
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017								
Maple Arrow	00	7.3	6.5	1.8	1.0	4.8	7.0	3.3	3.8	4.0	8.3	2.8	1.0	2.0	5.3	7.0	5.5	4.0	6.3										4.7	7.4	4.7	2.6	3.8	4.6
Merlin	000	4.8	2.5	1.8	1.0	1.5	3.0	1.0	1.0	1.0	5.3	1.0	1.0	1.0	3.0	6.0	1.3	2.0	5.0										1.8	4.8	2.0	1.4	3.2	2.6
Gallec	000	5.0	3.7	1.3	1.0	2.0	4.0	2.5	2.3	1.3	4.5	1.5	1.0	1.0	3.5	4.8	2.3	2.3	5.5										2.3	4.4	2.8	1.7	3.1	2.9
Galice	000/00	5.8	4.0	1.0	1.0	4.0	3.3	1.8	2.3	3.5	5.3	1.5	1.0	1.0	4.5	6.3	2.0	2.0	5.0										4.0	4.9	2.8	1.6	2.8	3.2
Opaline	00	7.5	6.3	1.3	1.0	4.8	6.5	3.8	3.8	4.0	6.5	2.0	1.0	1.3	5.3	6.8	5.8	3.8	6.0										4.7	6.6	4.8	2.4	3.3	4.4
Tourmaline	00	4.5	4.3	1.5	1.3	4.5	4.5	2.5	3.5	4.3	5.8	2.0	1.0	2.5	4.3	6.8	2.5	4.3	6.8										4.3	5.7	2.9	2.6	3.9	3.9
Aveline	000/00	6.0	4.5	1.3	1.0	3.5	4.0	3.0	4.5	2.8	5.8	1.5	1.0	1.0	5.3	6.0	3.8	2.8	5.3										3.8	5.3	3.6	2.4	3.3	3.7
Protéix	00	6.3	4.5	2.0	1.0	4.3	6.3	2.8	4.0	4.0	6.8	2.0	1.0	1.3	5.0	5.8	5.0	3.8	5.5										4.4	6.3	4.0	2.7	3.3	4.1
Falbala	00	7.8	4.3	1.3	1.0	4.3	6.8	1.8	4.0	5.3	7.3	1.3	1.0	2.0	5.0	6.0	3.0	4.5	5.0										4.8	6.7	3.4	2.7	3.3	4.2
Obélix	000/00	4.5	2.8	1.0	1.0	1.0	3.0	1.5	1.8	1.3	3.3	1.0	1.0	1.0	2.0	4.8	1.5	1.8	4.3										1.4	3.7	2.1	1.4	2.4	2.2
Toutatis	000/00	5.5	2.0	1.0	1.0	1.3	2.8	1.3	2.0	1.0	5.0	1.0	1.0	1.0	2.8	5.5	1.5	1.3	4.0										1.7	4.4	2.3	1.3	3.0	2.5
Témoins 000		4.9	3.1	1.5	1.0	1.8	3.5	1.8	1.6	1.1	4.9	1.3	1.0	1.0	3.3	5.4	1.8	2.1	5.3										2.0	4.6	2.4	1.6	3.2	2.8
Témoins 000/00		5.8	4.0	1.0	1.0	4.0	3.3	1.8	2.3	3.5	5.3	1.5	1.0	1.0	4.5	6.3	2.0	2.0	5.0										4.0	4.9	2.8	1.6	2.8	3.2
Témoins 00		6.0	5.3	1.4	1.1	4.6	5.5	3.1	3.6	4.1	6.1	2.0	1.0	1.9	4.8	6.8	4.1	4.0	6.4										4.5	6.1	3.8	2.5	3.6	4.1
Moy. témoins		5.5	4.1	1.3	1.0	3.5	4.1	2.2	2.5	2.9	5.4	1.6	1.0	1.3	4.2	6.1	2.6	2.7	5.5										3.5	5.2	3.0	1.9	3.2	3.4

## Teneur en protéines, % MS

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.							
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017								
Maple Arrow	00	41.2	40.2	40.9	45.0	41.1	43.7	39.3	40.8	40.3	43.1	40.0	38.4	43.1	41.0	41.7	37.6	41.9	42.8										40.8	42.8	39.7	40.5	43.2	41.4
Merlin	000	41.1	39.4	40.9	45.0	39.5	41.3	38.8	40.0	39.9	43.8	39.9	39.0	42.3	39.6	44.1	37.6	41.5	41.4										39.6	43.2	39.1	40.3	42.7	41.0
Gallec	000	42.8	40.1	40.3	45.5	41.1	45.0	40.5	40.9	41.0	44.6	41.0	39.3	43.9	41.6	44.3	38.7	42.7	43.1										41.2	44.5	40.6	40.9	44.0	42.2
Galice	000/00	41.7	39.3	38.8	44.0	40.2	42.6	39.3	39.0	39.7	43.8	40.2	38.3	41.7	39.9	42.9	37.0	41.5	41.3										39.9	43.6	39.5	39.6	42.6	41.0
Opaline	00	40.7	39.7	40.6	43.7	39.8	42.5	39.8	40.9	39.6	42.7	40.1	38.9	42.0	40.7	41.6	37.8	42.0	41.9										40.1	42.3	39.5	40.5	42.4	40.9
Tourmaline	00	40.2	38.9	41.1	45.2	39.7	42.1	39.1	40.4	39.9	42.4	39.8	38.9	42.5	39.8	41.9	36.8	42.5	43.0										39.8	42.6	39.0	40.7	43.2	41.0
Aveline	000/00	44.1	41.3	42.9	47.1	43.6	44.4	42.2	42.8	42.8	45.6	43.0	42.2	45.5	43.1	45.2	40.0	44.0	44.3										43.2	45.3	42.0	42.8	45.5	43.7
Protéix	00	43.9	43.3	43.5	47.2	42.9	45.3	43.0	43.4	42.9	45.2	43.9	40.9	45.7	43.5	44.5	40.7	44.9	46.5										43.1	45.1	42.5	43.1	46.5	44.1
Falbala	00	47.5	45.5	45.8	50.6	46.0	49.1	44.2	44.2	45.2	49.6	45.8	43.7	47.7	45.7	47.6	43.3	47.2	48.8										45.6	49.6	45.1	45.3	48.9	46.9
Obélix	000/00	43.0	39.7	39.9	46.2	41.2	44.0	40.2	40.9																									

# Résultats Soja 5 ans

## Teneur en protéines en valeur relative, %

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.						
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017							
Maple Arrow	00		101.8	102.2	100.2	101.2	103.4	103.3	99.7	100.4		101.4	101.2	100.2	98.7	101.9	101.8	99.9	100.9	99.2	100.8		99.3	103.2	100.0	99.5	102.2	100.9	101.2	99.7	100.9	101.0	
Merlin	000		97.9	99.1	100.8	99.4	97.9	95.8	97.8	98.9		98.6	99.2	98.7	99.7	98.2	97.5	99.8	98.6	98.6	98.0		99.4	97.6	98.4	98.5	98.0	98.5	98.1	99.3	98.5	98.5	
Gallec	000		102.1	100.9	99.2	100.6	102.1	104.2	102.2	101.1		101.4	100.8	101.3	100.3	101.8	102.5	100.2	101.4	101.4	102.0		100.6	100.2	101.6	101.5	102.0	101.5	101.9	100.7	101.5	101.5	
Galice	000/00		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Opaline	00		100.6	101.1	99.4	98.3	100.2	100.5	100.9	100.6		99.7	100.3	100.4	99.9	99.3	100.2	99.6	101.3	99.3	98.8		98.2	100.0	99.8	99.9	100.4	99.7	100.6	99.8	99.1	99.9	
Tourmaline	00		99.4	98.9	100.6	101.7	99.8	99.5	99.1	99.4		100.3	99.7	99.6	100.1	100.7	98.8	100.4	98.7	100.7	101.2		101.8	100.0	100.2	100.1	99.6	100.3	99.4	100.2	100.9	100.1	
Aveline	000/00		105.6	105.2	110.5	107.0	108.5	104.1	107.4	109.7		107.6	104.1	106.8	110.1	108.9	108.1	105.4	108.2	105.9	107.2		102.2	104.1	105.3	104.0	108.0	104.0	106.4	108.3	106.8	106.7	
Protéix	00		108.4	110.2	106.6	106.3	107.8	107.2	108.9	106.9		107.8	106.1	109.9	105.0	108.3	107.8	105.3	106.9	101.0	106.3	109.7		105.3	106.2	106.2	110.2	107.9	106.3	108.5	106.2	108.6	107.5
Falbala	00		117.5	115.7	112.1	114.0	115.6	116.1	111.9	108.7		113.6	116.5	114.7	112.4	113.0	113.6	114.0	116.3	111.8	115.0		120.7	115.0	113.4	115.3	114.3	116.8	115.1	111.7	114.3	114.4	
Obélix	000/00		103.2	101.0	102.9	104.8	102.4	103.2	102.4	104.8		103.3	98.5	100.9	103.9	103.9	103.0	104.4	103.0	102.2	106.1		99.8	100.2	102.4	102.6	102.9	101.5	101.9	103.2	104.3	102.8	
Toutatis	000/00		96.1	98.2	101.2	97.8	98.0	100.6	98.4	104.6		98.9	97.7	97.3	100.0	99.6	98.2	100.0	98.9	100.3	98.1		96.1	96.6	99.9	96.9	98.4	98.6	97.5	101.2	98.1	98.7	
Témoins 000			100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Témoins 000/00			100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Témoins 00			100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Moy. témoins			100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

## Teneur en huile, % MS

Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.					
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017						
Maple Arrow	00		19.2	20.0	19.5	20.1	18.9	16.8	19.5	19.6		18.5	17.1	19.7	20.9	20.9	18.2	18.3	20.4	19.4	20.9		18.8	19.5	20.3	21.1	18.5	17.8	19.7	19.9	20.7	19.3
Merlin	000		18.8	20.0	19.5	20.1	19.6	17.9	20.0	20.2		19.0	17.3	20.5	21.0	21.4	19.3	18.0	20.8	19.7	21.2		18.5	20.0	20.5	21.6	19.3	17.9	20.0	20.2	21.1	19.7
Gallec	000		18.3	19.2	19.4	20.4	19.0	16.7	18.9	19.8		18.2	16.5	19.2	19.7	20.6	18.2	17.0	20.2	18.6	20.3		18.3	19.8	20.2	20.8	18.5	17.1	19.3	19.5	20.5	19.0
Galice	000/00		18.6	20.3	20.5	20.5	19.3	17.1	19.7	20.5		19.1	17.2	19.8	20.7	21.4	19.0	17.8	20.9	19.6	21.4		18.3	20.4	21.3	21.1	19.1	17.6	19.9	20.5	21.1	19.6
Opaline	00		18.8	20.1	20.0	20.9	19.2	16.9	19.2	19.2		18.5	17.0	19.8	20.4	21.1	18.3	17.7	20.3	18.9	22.1		19.2	20.1	20.6	21.4	18.6	17.7	19.7	19.8	21.4	19.4
Tourmaline	00		19.3	20.0	19.7	20.8	19.4	17.2	19.7	19.9		18.6	17.5	20.2	20.4	20.7	18.6	18.1	20.9	19.2	22.2		18.5	20.4	21.0	21.5	18.9	17.8	20.1	20.0	21.3	19.6
Aveline	000/00		17.7	19.2	19.1	20.0	17.9	16.2	18.6	18.5		17.6	16.0	18.5	19.1	20.4	17.4	16.7	19.4	18.1	20.4		17.5	19.2	19.5	20.5	17.6	16.6	18.7	18.9	20.3	18.4
Protéix	00		17.5	18.3	18.4	19.7	17.9	15.7	18.0	18.4		17.4	16.0	18.4	19.5	19.9	17.1	16.6	19.2	17.9	20.0		17.7	19.4	19.2	19.7	17.5	16.5	18.5	18.7	19.8	18.2
Falbala	00		16.0	17.8	17.6	18.5	16.9	14.8	17.3	18.2		16.5	14.7	17.6	18.3	18.9	16.2	15.5	18.4	16.5	19.3		15.1	18.1	18.3	19.2	16.5	15.0	17.5	17.8	19.0	17.2
Obélix	000/00		18.2	20.4	19.8	20.5	19.1	16.9	19.2	19.7		18.4	17.4	19.9	20.1	21.2	18.5	17.3	20.3	18.8	21.5		18.2	20.1	20.8	21.0	18.7	17.4	19.5	19.8	21.0	19.3
Toutatis	000/00		18.6	20.2	19.8	21.1	19.7	16.7	19.8	19.5		18.8	17.2	20.0	21.0	21.5	19.0	17.7	20.7	19.1	22.4		18.7	20.3	20.6	21.8	19.2	17.6	19.9	20.0	21.7	19.7
Témoins 000			18.5	19.6	19.4	20.3	19.3	17.3	19.4	20.0		18.6	16.9	19.9	20.4	21.0	18.8	17.5	20.5	19.2	20.8		18.4	19.9	20.3	21.2	18.9	17.5	19.6	19.8	20.8	19.3
Témoins 000/00			18.6	20.3	20.5	20.5	19.3	17.1	19.7	20.5		19.1	17.2	19.8	20.7	21.4	19.0	17.8	20.9	19.6	21.4		18.3	20.4	21.3	21.1	19.1	17.6	19.9	20.5	21.1	19.6
Témoins 00			19.1	20.1	19.8	20.9	19.3	17.0	19.5	19.6		18.6	17.2	20.0	20.4	20.9	18.4	17.9	20.6	19.0	22.1		18.8	20.2	20.8	21.5	18.7	17.8	19.9	19.9	21.4	19.5
Moy. témoins			18.7	20.0	19.9	20.5	19.3	17.1	19.5	20.0		18.8	17.1	19.9	20.5	21.1	18.7	17.8	20.7	19.3	21.4		18.5	20.2	20.8	21.3	18.9	17.6	19.8	20.1	21.1	19.5

## Teneur en huile en valeur relative, %

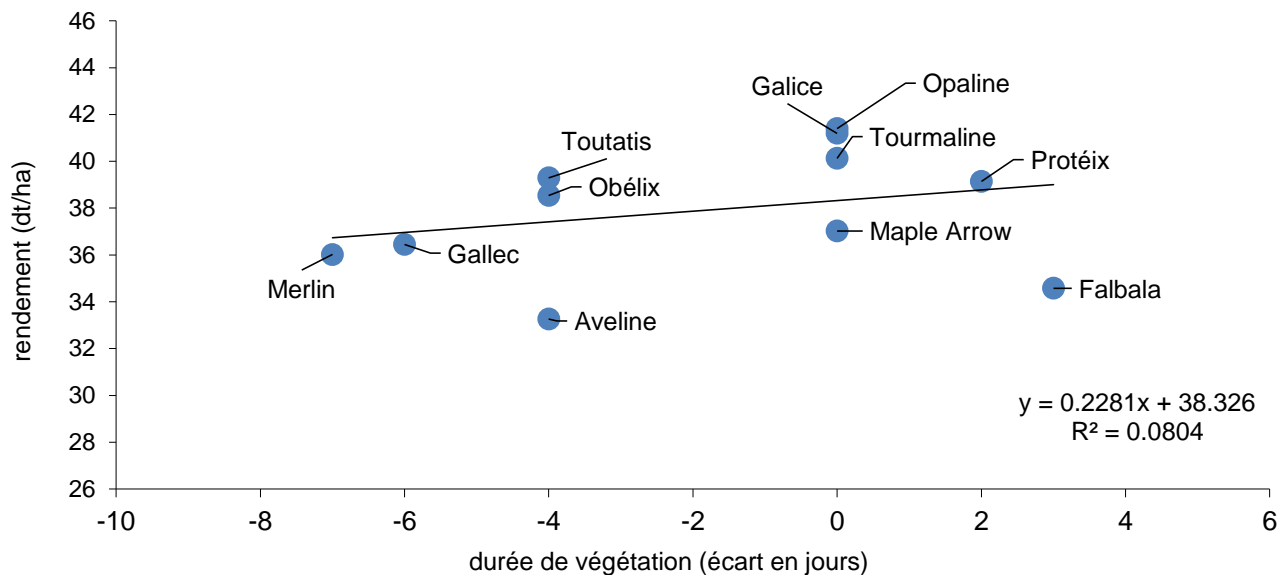
Variété	Groupe	Changins					Goumoëns					Giez					Delley					Reckenholz					Moy.					
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017						
Maple Arrow	00		100.6	99.4	98.3	96.4	98.0	98.7	100.2	100.3		99.7	99.1	98.3	102.4	99.7	98.4	102.4	99.1	101.6	94.3		100.0	96.5	97.7	98.2	98.7	100.0	98.9	100.1	97.2	99.0
Merlin	000		101.3	102.0	100.4	99.2	101.7	103.3	102.9	101.0		102.2	102.4	103.1	103.2	101.8	102.9	102.8	101.6	102.9	102.1		100.4	100.5	100.7	102.0	102.3	102.2	101.9	101.6	101.3	101.9
Gallec	000		98.7	98.0	99.6	100.8	98.3	96.7	97.1	99.0		97.8	97.6	96.9	96.8	98.2	97.1	97.2	98.4	97.1	97.9		99.6	99.5	99.3	98.0	97.7	97.8	98.1	98.4	98.7	98.1
Galice	000/00		100.0																													

## Synthèse Soja 5 ans

Synthèse 5 ans	Durée végétation écart en jours	Groupe précocité	Rdt. net	Rdt relatif durée	Rdt relatif groupe	Verse	PMG	Protéines	Protéines val. rel.	Huile	Huiles val. rel.
			11 % H2O dt/ha	végétation %	précocité %	(1=dressé) note	g	% MS	%	% MS	%
Maple Arrow	0	00	37.0	97	91	4.6	228	41.4	101	19.3	99
Merlin	-7	000	36.0	98	99	2.6	194	41.0	98	19.7	102
Gallec	-6	000	36.4	99	101	2.9	213	42.2	102	19.0	98
Galice	0	000/00	41.2	108	100	3.2	220	41.0	100	19.6	100
Opaline	0	00	41.4	108	102	4.4	215	40.9	100	19.4	100
Tourmaline	0	00	40.1	105	98	3.9	218	41.0	100	19.6	100
Aveline	-4	000/00	33.3	89	81	3.7	216	43.7	107	18.4	94
Protéix	2	00	39.1	101	96	4.1	199	44.1	108	18.2	93
Falbala	3	00	34.6	88	85	4.2	206	46.9	114	17.2	88
Obélix	-4	000/00	38.5	103	94	2.2	245	42.2	103	19.3	98
Toutatis	-4	000/00	39.3	105	95	2.5	211	40.5	99	19.7	100
Témoins 000			36.5			3.6	211	41.2		19.5	
Témoins 000/00			36.4			2.9	213	42.2		19.0	
Témoins 00			40.8			4.1	216	41.0		19.5	

Synthèse 5 ans	Durée végétation écart en jours	Groupe précocité	Rdt relatif durée	Verse	Protéines val. rel.	Huiles val. rel.	VAT
			végétation %	(bonus)	%	%	
Maple Arrow	0	00	97		1	-	98
Merlin	-7	000	98	1	-	2	101
Gallec	-6	000	99	1	2	-	102
Galice	0	000/00	108		-	-	108
Opaline	0	00	108		-	-	108
Tourmaline	0	00	105	1	-	-	106
Aveline	-4	000/00	89		7	-	96
Protéix	2	00	101		8	-	109
Falbala	3	00	88		14	-	102
Obélix	-4	000/00	103	1	3	-	107
Toutatis	-4	000/00	105	1	-	-	106

Rendement net à 11% H<sub>2</sub>O



# Résultats Soja 4 ans

## Rendement à 11% H2O, dt/ha

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.									
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	Moy.	
Maple Arrow	00	36.5	36.2	38.7	24.5	31.1	42.6	39.2		30.3	37.2	30.2	40.3	36.4	35.2	42.8	35.3	35.0	38.3	50.1	47.5	33.9	37.9	40.2	36.9	37.2	37.9	40.2	36.9	37.2	
Merlin	000	35.2	39.3	34.3	23.5	31.4	39.0	34.8		33.0	38.6	25.1	40.1	29.4	36.8	37.4	38.0	29.5	36.3	46.8	50.5	31.7	38.0	35.7	38.0	35.8	38.0	35.7	38.0	35.8	
Gallec	000	36.8	37.6	35.6	27.0	27.8	44.2	35.6		31.1	37.5	26.7	38.4	34.2	34.6	37.2	38.5	32.4	36.9	48.1	46.5	32.5	38.1	36.7	37.6	36.2	38.1	36.7	37.6	36.2	
Salice	000/00	47.1	43.5	38.5	26.3	32.4	45.3	41.6		39.2	46.0	29.9	43.3	40.1	38.6	39.7	42.3	37.5	44.0	53.0	50.2	39.3	43.5	40.6	40.5	40.9	43.5	40.6	40.5	40.9	
Opaline	00	42.7	41.1	40.1	25.7	37.0	43.1	42.5		42.0	41.1	29.7	42.6	39.4	36.5	45.4	41.5	37.7	38.3	55.8	52.5	39.8	40.0	42.7	40.6	40.8	40.0	40.0	42.7	40.6	40.8
Tourmaline	00	46.1	37.4	39.9	24.7	36.2	45.3	37.3		37.9	43.5	27.7	41.0	46.8	35.5	41.6	40.2	32.9	38.2	50.1	48.7	40.0	40.0	39.3	38.6	39.5	40.0	40.0	39.3	38.6	39.5
Aveline	000/00	35.8	32.6	30.9	22.0	26.5	36.0	35.4		31.0	32.4	25.5	34.2	28.0	28.7	39.2	36.7	30.2	32.3	46.3	44.9	30.3	32.4	35.5	34.5	33.2	30.3	32.4	35.5	34.5	33.2
Protéix	00	37.1	41.1	37.4	24.8	28.2	44.7	36.7		34.0	45.6	30.8	41.4	41.1	35.3	41.8	41.4	34.6	40.5	52.4	49.8	35.0	41.4	39.8	39.4	38.9	35.0	41.4	39.8	39.4	38.9
Falbala	00	34.1	36.3	37.7	20.7	23.8	36.3	34.9		30.0	40.7	27.2	40.6	36.4	32.4	37.9	39.5	26.9	34.8	48.8	46.8	30.2	36.1	37.3	36.9	35.1	30.2	36.1	37.3	36.9	35.1
Obélix	000/00	43.3	41.7	38.7	26.6	32.6	45.5	38.7		35.1	42.2	26.2	38.7	37.1	33.2	40.7	41.0	33.8	37.1	47.2	50.3	36.4	39.9	38.3	39.2	38.4	36.4	39.9	38.3	39.2	38.4
Toutatis	000/00	44.1	43.5	36.9	26.8	32.9	44.7	39.0		37.1	38.8	25.8	40.8	40.8	36.0	43.1	40.0	38.0	37.1	52.2	54.0	38.6	40.0	39.4	40.4	39.6	38.6	40.0	39.4	40.4	39.6
Abelina	000	40.8	37.4	32.1	24.7	31.0	36.0	38.4		34.7	38.2	23.4	45.1	33.1	34.1	38.1	43.3	34.4	37.4	46.6	51.1	34.8	36.6	35.7	41.0	37.0	34.8	36.6	35.7	41.0	37.0
Témoins 000		36.0	38.4	35.0	25.2	29.6	41.6	35.2		32.0	38.0	25.9	39.2	31.6	35.7	37.3	38.3	31.0	36.6	47.4	48.5	32.1	38.1	36.2	37.8	36.0	32.1	38.1	36.2	37.8	36.0
Témoins 000/00		47.1	43.5	38.5	26.3	32.4	45.3	41.6		39.2	46.0	29.9	43.3	40.1	38.6	39.7	42.3	37.5	44.0	53.0	50.2	39.3	43.5	40.6	40.5	40.9	39.3	43.5	40.6	40.5	40.9
Témoins 00		44.4	39.2	40.0	25.2	36.6	44.2	39.9		39.9	42.3	28.7	41.8	43.1	36.0	43.5	40.9	35.3	38.2	53.0	50.6	39.9	40.0	41.0	39.6	40.1	39.9	40.0	41.0	39.6	40.1
Moy. témoins		42.5	40.4	37.8	25.6	32.9	43.7	38.9		37.0	42.1	28.2	41.5	38.3	36.8	40.2	40.5	34.6	39.6	51.1	49.8	37.1	40.5	39.3	39.3	39.0	37.1	40.5	39.3	39.3	39.0

## Rendement en valeurs relatives à la durée de végétation, %

Variété	Jours	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.									
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	Moy.	
Maple Arrow	0.0	91.0	92.6	102.1	100.5	101.0	100.7	102.4		86.7	89.6	105.9	98.3	93.6	100.9	104.2	88.3	103.7	100.2	98.4	96.4	95.2	96.8	102.6	95.9	97.6	95.2	96.8	102.6	95.9	97.6
Merlin	-7.0	89.1	101.5	100.9	91.6	100.5	95.2	94.2		97.6	104.4	101.6	101.7	91.2	107.2	96.6	96.6	88.7	100.6	99.2	101.4	93.4	101.8	98.5	97.8	97.9	93.4	101.8	98.5	97.8	97.9
Gallec	-6.0	93.0	97.1	103.0	106.2	89.1	107.4	96.0		91.7	99.6	105.9	96.8	103.3	100.4	95.1	97.8	97.4	101.5	100.9	93.6	94.9	101.2	100.2	98.6	98.7	94.9	101.2	100.2	98.6	98.7
Salice	0.0	117.2	111.2	101.6	107.6	105.4	107.2	108.9		112.1	110.8	105.1	105.6	103.1	110.6	96.6	105.7	111.2	115.0	104.0	101.9	109.8	111.0	103.2	105.2	107.3	109.8	111.0	103.2	105.2	107.3
Opaline	0.0	106.3	105.2	105.8	105.2	120.3	101.8	111.3		120.1	99.0	104.4	103.9	101.3	104.6	110.5	103.8	111.7	100.1	109.7	106.7	112.0	102.1	108.3	104.9	106.8	112.0	102.1	108.3	104.9	106.8
Tourmaline	0.0	114.8	95.6	105.3	101.2	117.8	107.1	97.6		108.4	104.9	97.2	100.0	120.5	101.8	101.3	100.5	97.6	99.9	98.5	98.9	111.8	101.8	100.0	100.1	103.4	111.8	101.8	100.0	100.1	103.4
Aveline	-4.0	89.9	84.0	86.7	87.8	85.2	86.7	94.5		90.4	83.4	96.8	85.2	79.8	82.9	98.6	92.7	90.4	87.3	94.9	90.6	87.2	84.9	94.3	89.1	88.8	87.2	84.9	94.3	89.1	88.8
Protéix	2.0	91.9	104.8	95.8	103.0	92.3	104.7	95.0		96.4	106.6	104.2	99.9	100.7	100.7	100.1	102.9	102.2	104.2	100.8	101.6	96.7	104.2	99.2	101.8	100.5	96.7	104.2	99.2	101.8	100.5
Falbala	3.0	84.2	92.5	95.4	86.6	77.9	84.8	89.9		84.6	93.6	90.5	97.4	87.0	92.2	89.8	97.9	79.3	88.8	92.9	95.6	82.6	90.4	91.7	94.4	89.8	82.6	90.4	91.7	94.4	89.8
Obélix	-4.0	108.8	107.3	108.5	106.2	105.0	109.6	103.2		102.3	108.4	99.7	96.6	105.7	96.1	102.4	103.6	101.0	100.3	96.8	101.5	104.6	104.3	102.1	101.9	103.2	104.6	104.3	102.1	101.9	103.2
Toutatis	-4.0	110.9	112.0	103.5	106.6	105.8	107.6	104.1		108.1	99.7	98.0	101.0	116.2	104.0	108.3	101.0	113.7	100.4	107.1	109.0	111.0	104.7	104.2	104.6	106.1	111.0	104.7	104.2	104.6	106.1
Abelina	-5.0	102.9	96.3	91.3	97.5	99.5	87.1	103.0		101.6	99.9	90.6	113.0	97.2	98.7	96.5	109.5	103.0	101.8	96.7	102.9	100.8	96.8	95.6	105.7	99.7	100.8	96.8	95.6	105.7	99.7
Témoins 000		91.1	99.3	101.9	98.9	94.8	101.3	95.1		94.6	102.0	103.8	99.2	97.2	103.8	95.8	97.2	93.1	101.0	100.1	97.5	94.2	101.5	99.3	98.2	98.3	94.2	101.5	99.3	98.2	98.3
Témoins 000/00		117.2	111.2	101.6	107.6	105.4	107.2	108.9		112.1	110.8	105.1	105.6	103.1	110.6	96.6	105.7	111.2	115.0	104.0	101.9	109.8	111.0	103.2	105.2	107.3	109.8	111.0	103.2	105.2	107.3
Témoins 00		110.6	100.4	105.6	103.2	119.1	104.4	104.4		114.3	102.0	100.8	101.9	110.9	103.2	105.9	102.1	104.7	100.0	104.1	102.8	111.9	102.0	104.2	102.5	105.1	111.9	102.0	104.2	102.5	105.1
Moy. témoins		106.3	103.6	103.0	103.2	106.4	104.3	102.8		107.0	104.9	103.2	102.2	103.8	105.8	99.4	101.7	103.0	105.3	102.7	100.7	105.3	104.8	102.2	102.0	103.6	105.3	104.8	102.2	102.0	103.6

## Rendement en valeurs relatives au groupe de précocité, %

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.									
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	Moy.	
Maple Arrow	00	82.3	92.3	96.8	97.4	84.8	96.4	98.1		75.8	87.8	105.1	96.5	84.4	97.8	98.4	86.4	99.0	100.2	94.5	93.8	85.3	94.9	98.6	93.5	93.1	85.3	94.9	98.6	93.5	93.1
Merlin	000	97.7	102.2	98.1																											

# Résultats Soja 4 ans

## Poids de 1000 grains, g

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.			
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017				
Maple Arrow	00	229.8	228.8	224.1	218.7	231.9	218.2	280.5	242.7	203.5	185.9	214.6	328.1	205.2	239.4	241.9	221.1	205.0	274.6	194.8	250.7	212.1	240.9	217.5	230.3
Merlin	000	185.2	199.2	224.1	218.7	185.7	192.1	252.4	183.1	202.4	174.7	196.7	185.6	168.8	247.5	205.5	174.8	168.4	219.0	191.1	182.9	186.2	223.6	203.0	198.9
Gallec	000	221.5	216.7	216.1	194.9	226.8	208.2	234.8	223.2	212.1	198.5	213.4	235.6	187.7	234.8	235.2	211.1	194.8	242.4	188.7	223.6	203.9	225.3	208.1	215.2
Galice	000/00	243.5	217.3	212.3	190.6	228.0	228.1	252.9	225.5	222.8	221.0	221.9	229.9	199.4	241.1	228.4	224.9	212.6	239.4	203.8	230.4	216.0	233.3	211.2	222.7
Opaline	00	225.7	215.0	211.3	186.8	217.0	212.1	244.6	225.6	210.6	214.7	208.4	227.5	192.2	235.4	218.0	213.4	196.3	259.7	212.5	221.8	205.2	233.2	206.4	216.7
Tourmaline	00	219.2	220.9	227.3	217.9	225.3	214.9	272.3	219.7	214.3	203.9	217.1	226.6	196.3	247.5	241.9	208.3	191.1	243.2	198.4	219.8	207.5	238.8	218.8	221.2
Aveline	000/00	233.3	227.4	219.1	205.0	213.9	194.2	251.5	220.2	207.1	194.1	210.2	241.8	191.2	253.8	234.1	235.3	193.0	243.0	218.8	228.9	202.6	232.3	217.1	220.2
Protéix	00	204.1	209.7	194.3	188.6	183.9	200.9	268.8	196.8	205.3	204.6	190.2	207.9	187.4	230.0	214.9	180.3	185.9	229.8	179.5	194.6	197.8	225.5	193.3	202.8
Falbala	00	212.1	212.1	203.6	198.5	199.2	197.8	278.3	204.0	208.5	219.3	193.8	221.9	187.2	226.8	223.6	183.8	189.7	248.2	188.8	204.2	199.1	235.2	201.2	209.9
Obélix	000/00	277.1	251.1	253.5	226.5	263.4	246.7	267.1	242.6	248.2	217.0	254.9	268.1	221.1	266.8	269.4	238.3	204.1	260.6	207.4	257.9	234.3	253.0	239.5	246.2
Toutatis	000/00	215.8	215.3	218.9	179.8	219.7	212.5	263.4	219.5	220.7	207.6	216.1	218.9	191.3	240.0	215.8	204.8	194.4	246.2	215.9	215.7	206.9	235.2	205.5	215.8
Abelina	000	214.7	207.2	195.6	197.8	207.0	196.1	261.0	208.7	209.7	219.2	209.6	220.4	174.7	223.8	216.7	188.1	167.9	265.9	206.0	207.8	191.1	233.1	207.5	209.9
Témoins 000		203.3	207.9	220.1	206.8	206.3	200.1	243.6	203.2	207.3	186.6	205.1	210.6	178.3	241.2	220.4	192.9	181.6	230.7	189.9	203.2	195.0	224.4	205.5	207.1
Témoins 000/00		243.5	217.3	212.3	190.6	228.0	228.1	252.9	225.5	222.8	221.0	221.9	229.9	199.4	241.1	228.4	224.9	212.6	239.4	203.8	230.4	216.0	233.3	211.2	222.7
Témoins 00		222.5	218.0	219.3	202.4	221.1	213.5	258.4	222.7	212.5	209.3	212.8	227.0	194.3	241.4	229.9	210.8	193.7	251.5	205.5	220.8	206.4	236.0	212.6	219.0
Moy. témoins		223.1	214.4	217.2	199.9	218.5	213.9	251.6	217.1	214.2	205.7	213.3	222.5	190.6	241.2	226.2	209.6	196.0	240.5	199.7	218.1	205.8	231.3	209.8	216.3

## Verse à la récolte, note (1 = dressé)

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.			
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017				
Maple Arrow	00	7.3	6.5	1.8	1.0	7.0	3.3	3.8	8.3	2.8	1.0	2.0	7.0	5.5	4.0	6.3	6.0	6.0	6.0	6.0	7.4	4.5	2.6	3.8	4.6
Merlin	000	4.8	2.5	1.8	1.0	3.0	1.0	1.0	5.3	1.0	1.0	1.0	6.0	1.3	2.0	5.0	5.8	5.8	5.8	5.8	4.8	1.4	1.4	3.2	2.7
Gallec	000	5.0	3.7	1.3	1.0	4.0	2.5	2.3	4.5	1.5	1.0	1.0	4.8	2.3	2.3	5.5	5.0	5.0	5.0	5.0	4.6	2.5	1.7	3.1	3.0
Galice	000/00	5.8	4.0	1.0	1.0	3.3	1.8	2.3	5.3	1.5	1.0	1.0	6.3	2.0	2.0	5.0	4.1	4.1	4.1	4.1	5.1	2.3	1.6	2.8	2.9
Opaline	00	7.5	6.3	1.3	1.0	6.5	3.8	3.8	6.5	2.0	1.0	1.3	6.8	5.8	3.8	6.0	5.0	5.0	5.0	5.0	6.8	4.5	2.4	3.3	4.3
Tourmaline	00	4.5	4.3	1.5	1.3	4.5	2.5	3.5	5.8	2.0	1.0	2.5	6.8	2.5	4.3	6.8	5.1	5.1	5.1	5.1	5.4	2.8	2.6	3.9	3.7
Aveline	000/00	6.0	4.5	1.3	1.0	4.0	3.0	4.5	5.8	1.5	1.0	1.0	6.0	3.8	2.8	5.3	5.8	5.8	5.8	5.8	5.4	3.2	2.4	3.3	3.6
Protéix	00	6.3	4.5	2.0	1.0	6.3	2.8	4.0	6.8	2.0	1.0	1.3	5.8	5.0	3.8	5.5	5.3	5.3	5.3	5.3	6.3	3.6	2.7	3.3	3.9
Falbala	00	7.8	4.3	1.3	1.0	6.8	1.8	4.0	7.3	1.3	1.0	2.0	6.0	3.0	4.5	5.0	5.3	5.3	5.3	5.3	6.9	2.6	2.7	3.3	3.9
Obélix	000/00	4.5	2.8	1.0	1.0	3.0	1.5	1.8	3.3	1.0	1.0	1.0	4.8	1.5	1.8	4.3	3.5	3.5	3.5	3.5	3.9	1.7	1.4	2.4	2.3
Toutatis	000/00	5.5	2.0	1.0	1.0	2.8	1.3	2.0	5.0	1.0	1.0	1.0	5.5	1.5	1.3	4.0	5.9	5.9	5.9	5.9	4.7	1.4	1.3	3.0	2.6
Abelina	000	5.8	5.3	1.0	1.0	6.0	1.5	1.8	7.0	1.5	1.0	2.3	7.5	2.5	2.0	6.3	4.6	4.6	4.6	4.6	6.6	2.7	1.4	3.5	3.6
Témoins 000		4.9	3.1	1.5	1.0	3.5	1.8	1.6	4.9	1.3	1.0	1.0	5.4	1.8	2.1	5.3	5.4	5.4	5.4	5.4	4.7	2.0	1.6	3.2	2.8
Témoins 000/00		5.8	4.0	1.0	1.0	3.3	1.8	2.3	5.3	1.5	1.0	1.0	6.3	2.0	2.0	5.0	4.1	4.1	4.1	4.1	5.1	2.3	1.6	2.8	2.9
Témoins 00		6.0	5.3	1.4	1.1	5.5	3.1	3.6	6.1	2.0	1.0	1.9	6.8	4.1	4.0	6.4	5.1	5.1	5.1	5.1	6.1	3.6	2.5	3.6	4.0
Moy. témoins		5.5	4.1	1.3	1.0	4.1	2.2	2.5	5.4	1.6	1.0	1.3	6.1	2.6	2.7	5.5	4.9	4.9	4.9	4.9	5.3	2.6	1.9	3.2	3.2

## Teneur en protéines, % MS

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.			
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017				
Maple Arrow	00	41.2	40.2	40.9	45.0	43.7	39.3	40.8	43.1	40.0	38.4	43.1	41.7	37.6	41.9	42.8	42.8	40.2	40.3	41.9	42.5	39.5	40.5	43.2	41.4
Merlin	000	41.1	39.4	40.9	45.0	41.3	38.8	40.0	43.8	39.9	39.0	42.3	44.1	37.6	41.5	41.4	43.5	38.3	39.9	42.3	42.8	38.8	40.3	42.7	41.1
Gallec	000	42.8	40.1	40.3	45.5	45.0	40.5	40.9	44.6	41.0	39.3	43.9	44.3	38.7	42.7	43.1	44.0	40.2	41.3	43.6	44.1	40.1	40.9	44.0	42.3
Galice	000/00	41.7	39.3	38.8	44.0	42.6	39.3	39.0	43.8	40.2	38.3	41.7	42.9	37.0	41.5	41.3	45.0	39.4	40.2	43.2	43.2	39.0	39.6	42.6	41.1
Opaline	00	40.7	39.7	40.6	43.7	42.5	39.8	40.9	42.7	40.1	38.9	42.0	41.6	37.8	42.0	41.9	42.4	38.9	40.2	42.1	42.0	39.3	40.5	42.4	41.0
Tourmaline	00	40.2	38.9	41.1	45.2	42.1	39.1	40.4	42.4	39.8	38.9	42.5	41.9	36.8	42.5	43.0	43.9	38.9	40.4	42.2	42.1	38.7	40.7	43.2	41.2
Aveline	000/00	44.1	41.3	42.9	47.1	44.4	42.2	42.8	45.6	43.0	42.2	45.5	45.2	40.0	44.0	44.3	46.0	41.0	42.3	44.9	45.0	41.5	42.8	45.5	43.7
Protéix	00	43.9	43.3	43.5	47.2	45.3	43.0	43.4	45.2	43.9	40.9	45.7	44.5	40.7	44.9	46.5	45.4	41.3	42.8	46.4	44.9	42.4	43.1	46.5	44.2
Falbala	00	47.5	45.5	45.8	50.6	49.1	44.2	44.2	49.6	45.8	43.7	47.7	47.6	43.3	47.2	48.8	52.1	44.8	45.7	48.6	49.2	44.7	45.3	48.9	47.0
Obélix	000/00	43.0	39.7	39.9	46.2	44.0	40.2	40.9	43.1	40.6	39.8	43.4	44.8	38.1	42.4	43.9	44.9	39.5	41.2	44.3	44.0	39.6	40.8	44.4	42.2
Toutatis	000/00	40.1	38.6	39.3	43.1	42.9	38.6	40.8	42.7	39.1	38.3	41.6	42.9	36.5	41.6	40.5	43.2	38.0	40.1	41.8	42.4	38.2	40.0	41.8	40.6
Abelina	000	41.9	40.3	39.7	45.8	43.9	39.1	39.5	43.7	41.1	39.2	43.7	43.9	37.9	41.3	42.6	43.7	38.1	40.4	41.8	43.4	39.3	40.0	43.5	41.6
Témoins 000		42.0	39.8	40.6	45.2	43.2	39.6	40.4	44.2	40.4	39.1	43.1	44.2	38.1	42.1	42.2	43.7	39.2	40.6	42.9	43.5	39.4	40.6	43.4	41.7
Témoins																									

# Résultats Soja 4 ans

Teneur en protéines en valeur relative, %

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.				
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017					
Maple Arrow	00	101.8	102.2	100.2	101.2	103.3	99.7	100.4		101.2	100.2	98.7	101.9	99.9	100.9	99.2	100.8	99.3	103.2	100.0	99.5	101.1	101.2	99.7	100.9	100.7
Merlin	000	97.9	99.1	100.8	99.4	95.8	97.8	98.9		99.2	98.7	99.7	98.2	99.8	98.6	98.6	98.0	99.4	97.6	98.4	98.5	98.4	98.4	99.3	98.5	98.6
Gallec	000	102.1	100.9	99.2	100.6	104.2	102.2	101.1		100.8	101.3	100.3	101.8	100.2	101.4	101.4	102.0	100.6	102.4	101.6	101.5	101.6	101.6	100.7	101.5	101.4
Galice	000/00	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Opaline	00	100.6	101.1	99.4	98.3	100.5	100.9	100.6		100.3	100.4	99.9	99.3	99.6	101.3	99.3	98.8	98.2	100.0	99.8	99.9	99.9	100.7	99.8	99.1	99.9
Tourmaline	00	99.4	98.9	100.6	101.7	99.5	99.1	99.4		99.7	99.6	100.1	100.7	100.4	98.7	100.7	101.2	101.8	100.0	100.2	100.1	100.1	99.3	100.2	100.9	100.1
Aveline	000/00	105.6	105.2	110.5	107.0	104.1	107.4	109.7		104.1	106.8	110.1	108.9	105.4	108.2	105.9	107.2	102.2	104.1	105.3	104.0	104.3	106.3	108.3	106.8	106.4
Protéix	00	108.4	110.2	106.6	106.3	107.2	108.9	106.9		106.1	109.9	105.0	108.3	106.6	109.1	106.3	109.7	105.3	106.2	106.2	110.2	106.7	108.8	106.2	108.6	107.6
Falbala	00	117.5	115.7	112.1	114.0	116.1	111.9	108.7		116.5	114.7	112.4	113.0	114.0	116.3	111.8	115.0	120.7	115.0	113.4	115.3	117.0	114.7	111.7	114.3	114.4
Obélix	000/00	103.2	101.0	102.9	104.8	103.2	102.4	104.8		98.5	100.9	103.9	103.9	104.4	103.0	102.2	106.1	99.8	100.2	102.4	102.6	101.8	101.5	103.2	104.3	102.7
Toutatis	000/00	96.1	98.2	101.2	97.8	100.6	98.4	104.6		97.7	97.3	100.0	99.6	100.0	98.9	100.3	98.1	96.1	96.6	99.9	96.9	98.1	97.9	101.2	98.1	98.8
Abelina	000	99.7	101.3	97.9	101.3	101.7	98.7	97.7		98.9	101.5	100.0	101.4	99.3	99.4	98.1	100.9	99.9	97.2	99.5	97.3	99.9	99.6	98.6	100.2	99.6
Témoins 000		100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Témoins 000/00		100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Témoins 00		100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Moy. témoins		100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Teneur en huile, % MS

Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.				
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017					
Maple Arrow	00	19.2	20.0	19.5	20.1	16.8	19.5	19.6		17.1	19.7	20.9	20.9	18.3	20.4	19.4	20.9	18.8	19.5	20.3	21.1	18.1	19.8	19.9	20.7	19.6
Merlin	000	18.8	20.0	19.5	20.1	17.9	20.0	20.2		17.3	20.5	21.0	21.4	18.0	20.8	19.7	21.2	18.5	20.0	20.5	21.6	18.1	20.3	20.2	21.1	19.9
Gallec	000	18.3	19.2	19.4	20.4	16.7	18.9	19.8		16.5	19.2	19.7	20.6	17.0	20.2	18.6	20.3	18.3	19.8	20.2	20.8	17.4	19.5	19.5	20.5	19.2
Galice	000/00	18.6	20.3	20.5	20.5	17.1	19.7	20.5		17.2	19.8	20.7	21.4	17.8	20.9	19.6	21.4	18.3	20.4	21.3	21.1	17.8	20.2	20.5	21.1	19.9
Opaline	00	18.8	20.1	20.0	20.9	16.9	19.2	19.2		17.0	19.8	20.4	21.1	17.7	20.3	18.9	22.1	19.2	20.1	20.6	21.4	17.9	19.9	19.8	21.4	19.8
Tourmaline	00	19.3	20.0	19.7	20.8	17.2	19.7	19.9		17.5	20.2	20.4	20.7	18.1	20.9	19.2	22.2	18.5	20.4	21.0	21.3	18.1	20.3	20.0	21.3	19.9
Aveline	000/00	17.7	19.2	19.1	20.0	16.2	18.6	18.5		16.0	18.5	19.1	20.4	16.7	19.4	18.1	20.4	17.5	19.2	19.5	20.5	16.8	19.0	18.9	20.3	18.7
Protéix	00	17.5	18.3	18.4	19.7	15.7	18.0	18.4		16.0	18.4	19.5	19.9	16.6	19.2	17.9	20.0	17.7	19.4	19.2	19.7	16.7	18.7	18.7	19.8	18.5
Falbala	00	16.0	17.8	17.6	18.5	14.8	17.3	18.2		14.7	17.6	18.3	18.9	15.5	18.4	16.5	19.3	15.1	18.1	18.3	19.2	15.2	17.8	17.8	19.0	17.4
Obélix	000/00	18.2	20.4	19.8	20.5	16.9	19.2	19.7		17.4	19.9	20.1	21.2	17.3	20.3	18.8	21.5	18.2	20.1	20.8	21.0	17.6	20.0	19.8	21.0	19.6
Toutatis	000/00	18.6	20.2	19.8	21.1	16.7	19.8	19.5		17.2	20.0	21.0	21.5	17.7	20.7	19.1	22.4	18.7	20.3	20.6	21.8	17.8	20.2	20.0	21.7	19.9
Abelina	000	18.6	20.0	20.4	20.6	17.4	19.7	20.8		17.3	19.6	21.1	21.3	17.9	20.7	19.4	21.5	19.2	20.5	20.9	21.5	18.1	20.1	20.5	21.2	20.0
Témoins 000		18.5	19.6	19.4	20.3	17.3	19.4	20.0		16.9	19.9	20.4	21.0	17.5	20.5	19.2	20.8	18.4	19.9	20.3	21.2	17.7	19.9	19.8	20.8	19.6
Témoins 000/00		18.6	20.3	20.5	20.5	17.1	19.7	20.5		17.2	19.8	20.7	21.4	17.8	20.9	19.6	21.4	18.3	20.4	21.3	21.1	17.8	20.2	20.5	21.1	19.9
Témoins 00		19.1	20.1	19.8	20.9	17.0	19.5	19.6		17.2	20.0	20.4	20.9	17.9	20.6	19.0	22.1	18.8	20.2	20.8	21.5	18.0	20.1	19.9	21.4	19.8
Moy. témoins		18.7	20.0	19.9	20.5	17.1	19.5	20.0		17.1	19.9	20.5	21.1	17.8	20.7	19.3	21.4	18.5	20.2	20.8	21.3	17.8	20.1	20.1	21.1	19.8

Teneur en huile en valeur relative, %

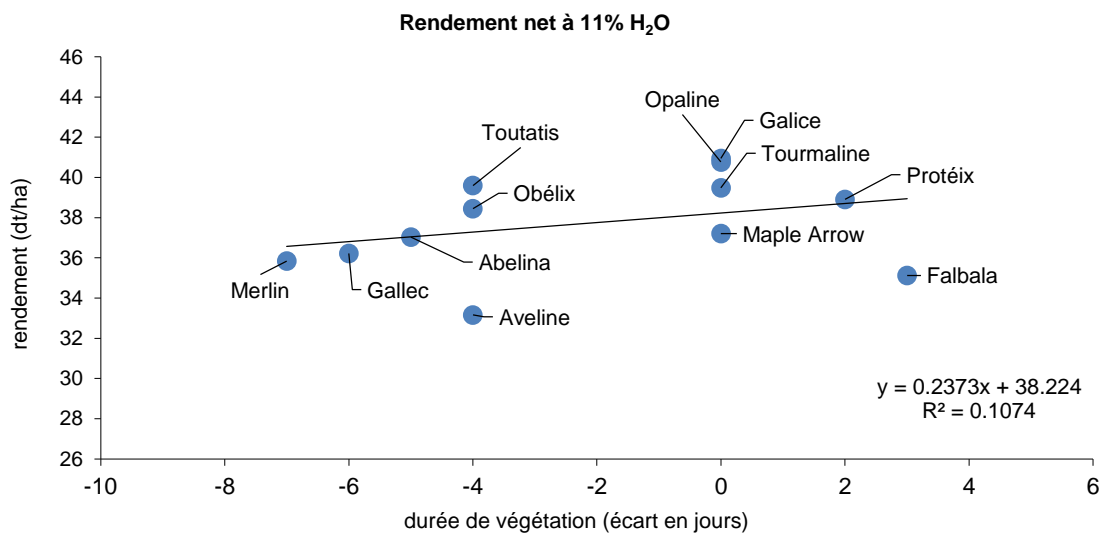
Variété	Groupe	Changins				Goumoëns				Giez				Delley				Reckenholz				Moy.				
		2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017					
Maple Arrow	00	100.6	99.4	98.3	96.4	98.7	100.2	100.3		99.1	98.3	102.4	99.7	102.4	99.1	101.6	94.3	100.0	96.5	97.7	98.2	100.1	98.7	100.1	97.2	99.0
Merlin	000	101.3	102.0	100.4	99.2	103.3	102.9	101.0		102.4	103.1	103.2	101.8	102.8	101.6	102.9	102.1	100.4	100.5	100.7	102.0	102.0	102.0	101.6	101.3	101.7
Gallec	000	98.7	98.0	99.6	100.8	96.7	97.1	99.0		97.6	96.9	96.8	98.2	97.2	98.4	97.1	97.9	99.6	99.5	99.3	98.0	98.0	98.0	98.4	98.7	98.3
Galice	000/00	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Opaline	00	98.7	100.2	100.6	100.3	99.3	98.8	98.3		98.4	98.9	99.9	101.0	98.9	98.7	99.4	99.8	102.0	99.2	99.1	99.8	99.5	99.2	99.5	100.2	99.6
Tourmaline	00	101.3	99.8	99.4	99.7	100.7	101.2	101.7		101.6	101.1	100.1	99.0	101.1	101.3	100.6	100.2	98.0	100.8	100.9	100.2	100.5	100.8	100.5	99.8	100.4
Aveline	000/00	95.3	94.4	93.1	97.8	95.0	94.4	90.4		93.3	93.3	92.0	95.4	93.7	93.2	92.5	95.4	95.6	94.0	91.5	97.3	94.6	93.9	91.9	96.5	94.2
Protéix	00	91.7	91.2	92.7	94.3	92.1	92.2	94.1		92.5	91.8	95.5	95.1	92.5	93.0	93.9	90.2	94.2	96.1	92.3	91.7	92.6	92.9			



# Synthèse Soja 4 ans

Synthèse 4 ans	Durée végétation écart en jours	Groupe précocité	Rdt. net	Rdt relatif durée	Rdt relatif groupe	Verse	PMG	Protéines	Protéines val. rel.	Huile	Huiles val. rel.
			11 % H <sub>2</sub> O dt/ha	végétation %	précocité %	(1=dressé) note	g	% MS	%	% MS	%
Maple Arrow	0	00	37.2	98	93	5	230	41.4	101	19.6	99
Merlin	-7	000	35.8	98	99	3	199	41.1	99	19.9	102
Gallec	-6	000	36.2	99	101	3	215	42.3	101	19.2	98
Galice	0	000/00	40.9	107	100	3	223	41.1	100	19.9	100
Opaline	0	00	40.8	107	102	4	217	41.0	100	19.8	100
Tourmaline	0	00	39.5	103	98	4	221	41.2	100	19.9	100
Aveline	-4	000/00	33.2	89	81	4	220	43.7	106	18.7	94
Protéix	2	00	38.9	100	97	4	203	44.2	108	18.5	93
Falbala	3	00	35.1	90	87	4	210	47.0	114	17.4	88
Obélix	-4	000/00	38.4	103	94	2	246	42.2	103	19.6	99
Toutatis	-4	000/00	39.6	106	97	3	216	40.6	99	19.9	100
Abelina	-5	000	37.0	100	103	4	210	41.6	100	20.0	102
Témoins 000			36.5			4	215	41.3		19.8	
Témoins 000/00			36.2			3	215	42.3		19.2	
Témoins 00			40.1			4	219	41.1		19.8	

Synthèse 4 ans	Durée végétation écart en jours	Groupe précocité	Rdt relatif durée	Verse	Protéines val. rel.	Huiles val. rel.	VAT
			végétation %	(bonus)	%	%	
Maple Arrow	0	00	98		1	-	99
Merlin	-7	000	98	1	-	2	101
Gallec	-6	000	99	1	1	-	101
Galice	0	000/00	107	1	-	-	108
Opaline	0	00	107		-	-	107
Tourmaline	0	00	103	1	-	-	104
Aveline	-4	000/00	89		6	-	95
Protéix	2	00	100	1	8	-	109
Falbala	3	00	90	1	14	-	105
Obélix	-4	000/00	103	1	3	-	107
Toutatis	-4	000/00	106	1	-	-	107
Abelina	-5	000	100	1	-	2	103





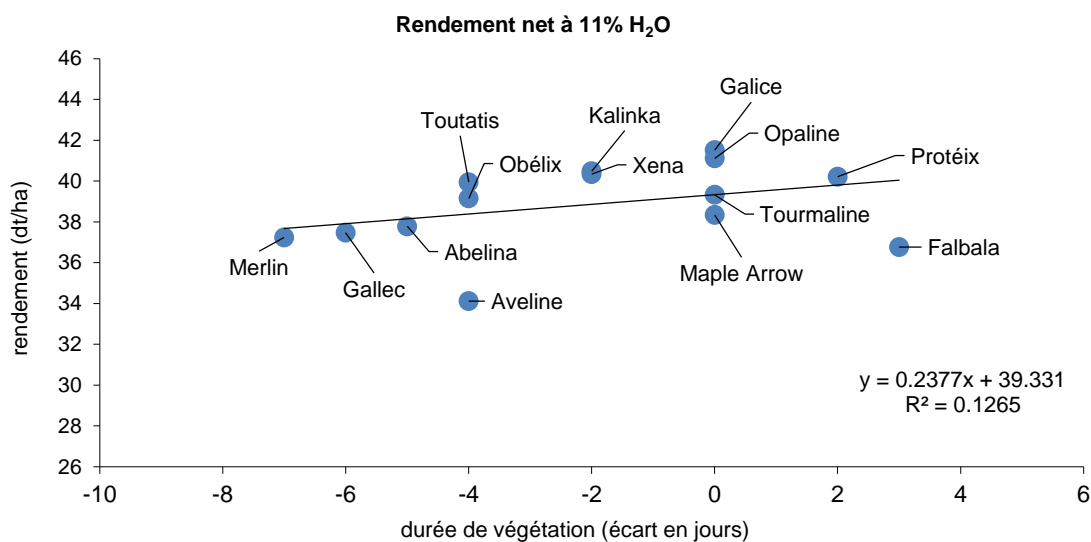




## Synthèse Soja 3 ans

Synthèse 3 ans	Durée végétation écart en jours	Groupe précocité	Rdt. net 11 % H2O dt/ha	Rdt relatif durée végétation %	Rdt relatif groupe précocité %	Verse (1=dressé) note	PMG g	Protéines % MS	Protéines val. rel. %	Huile % MS	Huiles val. rel. %
Maple Arrow	0	00	38.3	98	96	4	224	41.0	101	20.2	99
Merlin	-7	000	37.2	99	99	2	204	40.6	99	20.5	102
Gallec	-6	000	37.5	99	101	2	212	41.7	101	19.8	98
Galice	0	000/00	41.5	106	100	2	220	40.4	100	20.6	100
Opaline	0	00	41.1	104	102	3	215	40.7	100	20.4	100
Tourmaline	0	00	39.3	100	98	3	222	40.9	100	20.5	100
Aveline	-4	000/00	34.1	89	82	3	217	43.3	107	19.4	94
Obélix	-4	000/00	39.1	102	94	2	242	41.6	103	20.3	98
Protéix	2	00	40.2	101	100	3	206	44.0	108	19.0	93
Falbala	3	00	36.8	92	91	3	212	46.3	114	18.2	89
Toutatis	-4	000/00	39.9	104	96	2	216	40.0	99	20.6	100
Abelina	-5	000	37.8	99	101	3	211	40.9	100	20.6	102
Kalinka	-2	000/00	40.5	104	98	3	214	40.7	101	20.7	101
Xena	-2	000/00	40.3	104	97	2	216	40.4	100	20.5	100
Témoins 000			37.3			2	208	41.1		20.2	
Témoins 000/00			41.5			2	220	40.4		20.6	
Témoins 00			40.2			3	218	40.8		20.5	

Synthèse 3 ans	Durée végétation écart en jours	Groupe précocité	Rdt relatif durée végétation %	Verse (bonus)	Protéines val. rel. %	Huiles val. rel. %	VAT
Maple Arrow	0	00	98		1	-	99
Merlin	-7	000	99		-	-	101
Gallec	-6	000	99		1	-	100
Galice	0	000/00	106		-	-	106
Opaline	0	00	104		-	-	104
Tourmaline	0	00	100		-	-	100
Aveline	-4	000/00	89		7	-	96
Obélix	-4	000/00	102		3	-	105
Protéix	2	00	101		8	-	109
Falbala	3	00	92		14	-	106
Toutatis	-4	000/00	104		-	-	104
Abelina	-5	000	99		-	2	101
Kalinka	-2	000/00	104		1	1	106
Xena	-2	000/00	104		-	-	104



## Résultats Soja 2 ans

### Rendement à 11% H2O, dt/ha

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	38.7	24.5	39.2		30.2	40.3	42.8	35.3	50.1	47.5	40.2	33.4	36.8
Merlin	000	34.3	23.5	34.8		25.1	40.1	37.4	38.0	46.8	50.5	35.7	33.9	34.8
Gallec	000	35.6	27.0	35.6		26.7	38.4	37.2	38.5	48.1	46.5	36.7	34.6	35.6
Galice	000/00	38.5	26.3	41.6		29.9	43.3	39.7	42.3	53.0	50.2	40.6	37.3	38.9
Opaline	00	40.1	25.7	42.5		29.7	42.6	45.4	41.5	55.8	52.5	42.7	36.6	39.7
Tourmaline	00	39.9	24.7	37.3		27.7	41.0	41.6	40.2	50.1	48.7	39.3	35.3	37.3
Aveline	000/00	30.9	22.0	35.4		25.5	34.2	39.2	36.7	46.3	44.9	35.5	31.0	33.2
Obélix	000/00	38.7	26.6	38.7		26.2	38.7	40.7	41.0	47.2	50.3	38.3	35.5	36.9
Protéix	00	37.4	24.8	36.7		30.8	41.4	41.8	41.4	52.4	49.8	39.8	35.9	37.8
Falbala	00	37.7	20.7	34.9		27.2	40.6	37.9	39.5	48.8	46.8	37.3	33.6	35.4
Toutatis	000/00	36.9	26.8	39.0		25.8	40.8	43.1	40.0	52.2	54.0	39.4	35.9	37.6
Abelina	000	32.1	24.7	38.4		23.4	45.1	38.1	43.3	46.6	51.1	35.7	37.7	36.7
Kalinka	000/00	40.8	25.2	43.3		28.7	41.4	43.9	44.0	50.6	50.6	41.4	36.9	39.2
Xena	000/00	39.2	25.3	37.6		31.6	42.9	40.9	43.2	50.7	52.5	40.0	37.1	38.6
Amandine	000/00	39.5	22.7	36.0		26.0	36.8	35.5	39.3	51.1	49.5	37.6	33.0	35.3
Témoins 000		35.0	25.2	35.2		25.9	39.2	37.3	38.3	47.4	48.5	36.2	34.3	35.2
Témoins 000/00		38.5	26.3	41.6		29.9	43.3	39.7	42.3	53.0	50.2	40.6	37.3	38.9
Témoins 00		40.0	25.2	39.9		28.7	41.8	43.5	40.9	53.0	50.6	41.0	36.0	38.5
Moy. témoins		37.8	25.6	38.9		28.2	41.5	40.2	40.5	51.1	49.8	39.3	35.8	37.5

### Rendement en valeurs relatives à la durée de végétation, %

Variété	Jours	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	0.0	101	101	103		105	99	105	88	98	96	102	96	99
Merlin	-7.0	98	92	92		99	101	95	94	98	101	96	96	96
Gallec	-6.0	100	106	94		103	96	94	96	100	93	98	99	99
Galice	0.0	100	108	109		104	106	97	105	104	101	103	106	105
Opaline	0.0	105	106	112		104	104	111	103	109	106	108	104	106
Tourmaline	0.0	104	102	98		97	100	102	100	98	98	100	101	100
Aveline	-4.0	85	88	93		95	85	98	91	94	90	93	88	91
Obélix	-4.0	106	106	102		98	96	102	102	96	101	101	102	101
Protéix	2.0	95	104	96		104	101	102	103	101	101	100	102	101
Falbala	3.0	95	87	91		91	98	92	98	93	95	92	94	93
Toutatis	-4.0	101	107	103		96	101	108	99	106	108	103	103	103
Abelina	-5.0	89	98	101		89	113	96	107	96	102	94	106	100
Kalinka	-5	113	100	114		109	103	110	109	104	101	110	104	107
Xena	-2.0	105	103	99		114	106	101	107	101	106	104	105	105
Amandine	-1.0	104	93	94		92	90	87	98	101	100	96	94	95
Témoins 000		99	99	93		101	99	94	95	99	97	97	98	97
Témoins 000/00		100	108	109		104	106	97	105	104	101	103	106	105
Témoins 00		104	104	105		100	102	107	101	104	102	104	102	103
Moy. témoins		101	104	102		102	102	100	100	102	100	101	102	102

## Résultats Soja 2 ans

### Rendement en valeurs relatives au groupe de précocité, %

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	97	97	98		105	96	98	86	95	94	99	93	96
Merlin	000	98	93	99		97	102	100	99	99	104	99	98	98
Gallec	000	102	107	101		103	98	100	101	101	96	101	102	102
Galice	000/00	100	100	100		100	100	100	100	100	100	100	100	100
Opaline	00	100	102	107		104	102	104	102	105	104	104	102	103
Tourmaline	00	100	98	93		96	98	96	98	95	96	96	98	97
Aveline	000/00	80	84	85		85	79	99	87	87	89	87	83	85
Obélix	000/00	101	101	93		88	89	103	97	89	100	95	96	95
Protéix	00	93	98	92		107	99	96	101	99	98	98	100	99
Falbala	00	94	82	87		95	97	87	97	92	93	91	92	92
Toutatis	000/00	96	102	94		86	94	108	95	99	108	97	97	97
Abelina	000	92	98	109		90	115	102	113	98	105	98	109	103
Kalinka	000/00	106	96	104		96	96	111	104	96	101	102	99	100
Xena	000/00	102	96	90		106	99	103	102	96	105	99	99	99
Amandine	000/00	102	86	86		87	85	89	93	96	99	92	88	90
Témoins 000		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 000/00		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 00		100	100	100		100	100	100	100	100	100	100	100	100
Moy. témoins		100	100	100		100	100	100	100	100	100	100	100	100

### Poids de 1000 grains, g

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	224	219	281		186	215	239	242	275	195	241	225	233
Merlin	000	224	219	252		175	197	248	206	219	191	224	207	215
Gallec	000	216	195	235		199	213	235	235	242	189	225	215	220
Galice	000/00	212	191	253		221	222	241	228	239	204	233	214	223
Opaline	00	211	187	245		215	208	235	218	260	213	233	204	219
Tourmaline	00	227	218	272		204	217	247	242	243	198	239	226	232
Aveline	000/00	219	205	251		194	210	254	234	243	219	232	216	224
Obélix	000/00	254	226	267		217	255	267	269	261	207	253	250	252
Protéix	00	194	189	269		205	190	230	215	230	180	226	198	212
Falbala	00	204	198	278		219	194	227	224	248	189	235	205	220
Toutatis	000/00	219	180	263		208	211	240	216	246	216	235	202	219
Abelina	000	196	198	261		219	210	224	217	266	206	233	208	221
Kalinka	000/00	199	185	252		292	192	239	219	239	216	244	199	221
Xena	000/00	205	185	250		272	207	254	222	250	202	246	205	225
Amandine	000/00	209	187	231		277	196	227	219	269	197	243	201	222
Témoins 000		220	207	244		187	205	241	220	231	190	224	211	218
Témoins 000/00		212	191	253		221	222	241	228	239	204	233	214	223
Témoins 00		219	202	258		209	213	241	230	251	205	236	215	226
Moy. témoins		217	200	252		206	213	241	226	241	200	231	213	222

## Résultats Soja 2 ans

### Verse à la récolte, note (1 = dressé)

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	2	1	4		1	2	4	6		6	3	3	3
Merlin	000	2	1	1		1	1	2	5		6	1	2	2
Gallec	000	1	1	2		1	1	2	6		5	2	3	2
Galice	000/00	1	1	2		1	1	2	5		4	2	2	2
Opaline	00	1	1	4		1	1	4	6		5	2	3	3
Tourmaline	00	2	1	4		1	3	4	7		5	3	4	3
Aveline	000/00	1	1	5		1	1	3	5		6	2	2	2
Obélix	000/00	1	1	2		1	1	2	4		4	1	2	2
Protéix	00	2	1	4		1	1	4	6		5	3	3	3
Falbala	00	1	1	4		1	2	5	5		5	3	3	3
Toutatis	000/00	1	1	2		1	1	1	4		6	1	2	2
Abelina	000	1	1	2		1	2	2	6		5	1	3	2
Kalinka	000/00	1	1	4		1	2	3	6		3	2	3	3
Xena	000/00	2	1	2		1	1	2	5		4	2	2	2
Amandine	000/00	1	1	2		1	1	2	5		5	2	2	2
Témoins 000		2	1	2		1	1	2	5		5	2	2	2
Témoins 000/00		1	1	2		1	1	2	5		4	2	2	2
Témoins 00		1	1	4		1	2	4	6		5	3	3	3
Moy. témoins		1	1	3		1	1	3	6		5	2	3	2

### Teneur en protéines, % MS

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	40.9	45.0	40.8		38.4	43.1	41.9	42.8	40.3	41.9	40.5	43.6	42.0
Merlin	000	40.9	45.0	40.0		39.0	42.3	41.5	41.4	39.9	42.3	40.3	42.9	41.6
Gallec	000	40.3	45.5	40.9		39.3	43.9	42.7	43.1	41.3	43.6	40.9	44.2	42.5
Galice	000/00	38.8	44.0	39.0		38.3	41.7	41.5	41.3	40.2	43.2	39.6	42.4	41.0
Opaline	00	40.6	43.7	40.9		38.9	42.0	42.0	41.9	40.2	42.1	40.5	42.5	41.5
Tourmaline	00	41.1	45.2	40.4		38.9	42.5	42.5	43.0	40.4	42.2	40.7	43.6	42.1
Aveline	000/00	42.9	47.1	42.8		42.2	45.5	44.0	44.3	42.3	44.9	42.8	45.6	44.2
Obélix	000/00	39.9	46.2	40.9		39.8	43.4	42.4	43.9	41.2	44.3	40.8	44.5	42.6
Protéix	00	43.5	47.2	43.4		40.9	45.7	44.9	46.5	42.8	46.4	43.1	46.5	44.8
Falbala	00	45.8	50.6	44.2		43.7	47.7	47.2	48.8	45.7	48.6	45.3	49.1	47.2
Toutatis	000/00	39.3	43.1	40.8		38.3	41.6	41.6	40.5	40.1	41.8	40.0	41.7	40.9
Abelina	000	39.7	45.8	39.5		39.2	43.7	41.3	42.6	40.4	41.8	40.0	44.1	42.0
Kalinka	000/00	40.1	44.8	39.7		38.7	42.6	42.2	42.4	39.7	41.9	40.1	43.3	41.7
Xena	000/00	39.2	44.0	39.7		37.7	42.2	41.9	41.0	40.3	42.3	39.8	42.4	41.1
Amandine	000/00	41.2	45.8	40.8		39.3	43.5	42.6	43.6	41.0	43.9	41.0	44.3	42.6
Témoins 000		40.6	45.2	40.4		39.1	43.1	42.1	42.2	40.6	42.9	40.6	43.5	42.1
Témoins 000/00		38.8	44.0	39.0		38.3	41.7	41.5	41.3	40.2	43.2	39.6	42.4	41.0
Témoins 00		40.8	44.4	40.6		38.9	42.3	42.2	42.4	40.3	42.1	40.6	43.0	41.8
Moy. témoins		40.1	44.6	40.0		38.8	42.4	41.9	42.0	40.4	42.7	40.2	43.0	41.6



## Résultats Soja 2 ans

### Teneur en protéines en valeur relative, %

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	100.2	101.2	100.4		98.7	101.9	99.2	100.8	100.0	99.5	99.7	101.3	100.5
Merlin	000	100.8	99.4	98.9		99.7	98.2	98.6	98.0	98.4	98.5	99.3	98.5	98.9
Gallec	000	99.2	100.6	101.1		100.3	101.8	101.4	102.0	101.6	101.5	100.7	101.5	101.1
Galice	000/00	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Opaline	00	99.4	98.3	100.6		99.9	99.3	99.3	98.8	99.8	99.9	99.8	98.8	99.3
Tourmaline	00	100.6	101.7	99.4		100.1	100.7	100.7	101.2	100.2	100.1	100.2	101.2	100.7
Aveline	000/00	110.5	107.0	109.7		110.1	108.9	105.9	107.2	105.3	104.0	108.3	107.7	108.0
Obélix	000/00	102.9	104.8	104.8		103.9	103.9	102.2	106.1	102.4	102.6	103.2	104.9	104.1
Protéix	00	106.6	106.3	106.9		105.0	108.3	106.3	109.7	106.2	110.2	106.2	108.1	107.1
Falbala	00	112.1	114.0	108.7		112.4	113.0	111.8	115.0	113.4	115.3	111.7	114.0	112.8
Toutatis	000/00	101.2	97.8	104.6		100.0	99.6	100.3	98.1	99.9	96.9	101.2	98.5	99.8
Abelina	000	97.9	101.3	97.7		100.0	101.4	98.1	100.9	99.5	97.3	98.6	101.2	99.9
Kalinka	000/00	103.2	101.6	101.8		101.1	102.1	101.6	102.6	98.9	97.1	101.3	102.1	101.7
Xena	000/00	101.1	99.8	101.7		98.4	101.1	100.9	99.3	100.4	97.9	100.5	100.1	100.3
Amandine	000/00	106.2	104.1	104.7		102.7	104.1	102.6	105.5	101.9	101.6	103.6	104.6	104.1
Témoins 000		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 000/00		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 00		100	100	100		100	100	100	100	100	100	100	100	100
Moy. témoins		100	100	100		100	100	100	100	100	100	100	100	100

### Teneur en huile, % MS

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	19.5	20.1	19.6		20.9	20.9	19.4	20.9	20.3	21.1	19.9	20.6	20.3
Merlin	000	19.5	20.1	20.2		21.0	21.4	19.7	21.2	20.5	21.6	20.2	20.9	20.5
Gallec	000	19.4	20.4	19.8		19.7	20.6	18.6	20.3	20.2	20.8	19.5	20.5	20.0
Galice	000/00	20.5	20.5	20.5		20.7	21.4	19.6	21.4	21.3	21.1	20.5	21.1	20.8
Opaline	00	20.0	20.9	19.2		20.4	21.1	18.9	22.1	20.6	21.4	19.8	21.4	20.6
Tourmaline	00	19.7	20.8	19.9		20.4	20.7	19.2	22.2	21.0	21.5	20.0	21.2	20.6
Aveline	000/00	19.1	20.0	18.5		19.1	20.4	18.1	20.4	19.5	20.5	18.9	20.3	19.6
Obélix	000/00	19.8	20.5	19.7		20.1	21.2	18.8	21.5	20.8	21.0	19.8	21.1	20.4
Protéix	00	18.4	19.7	18.4		19.5	19.9	17.9	20.0	19.2	19.7	18.7	19.9	19.3
Falbala	00	17.6	18.5	18.2		18.3	18.9	16.5	19.3	18.3	19.2	17.8	18.9	18.3
Toutatis	000/00	19.8	21.1	19.5		21.0	21.5	19.1	22.4	20.6	21.8	20.0	21.6	20.8
Abelina	000	20.4	20.6	20.8		21.1	21.3	19.4	21.5	20.9	21.5	20.5	21.1	20.8
Kalinka	000/00	20.8	21.0	20.1		21.0	21.5	18.8	21.9	21.2	21.5	20.4	21.5	20.9
Xena	000/00	20.1	21.4	20.2		21.1	21.2	19.2	21.9	20.8	21.3	20.3	21.5	20.9
Amandine	000/00	20.0	20.6	19.5		19.8	20.7	18.9	21.5	20.6	20.6	19.8	20.9	20.3
Témoins 000		19.4	20.3	20.0		20.4	21.0	19.2	20.8	20.3	21.2	19.8	20.7	20.3
Témoins 000/00		20.5	20.5	20.5		20.7	21.4	19.6	21.4	21.3	21.1	20.5	21.1	20.8
Témoins 00		19.8	20.9	19.6		20.4	20.9	19.0	22.1	20.8	21.5	19.9	21.3	20.6
Moy. témoins		19.9	20.5	20.0		20.5	21.1	19.3	21.4	20.8	21.3	20.1	21.0	20.6

## Résultats Soja 2 ans

### Teneur en huile en valeur relative, %

Variété	Groupe	Changins		Goumoëns		Giez		Delley		Reckenholz		2016	2017	Moy.
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017			
Maple Arrow	00	98.3	96.4	100.3		102.4	99.7	101.6	94.3	97.7	98.2	100.1	96.8	98.4
Merlin	000	100.4	99.2	101.0		103.2	101.8	102.9	102.1	100.7	102.0	101.6	101.1	101.3
Gallec	000	99.6	100.8	99.0		96.8	98.2	97.1	97.9	99.3	98.0	98.4	98.9	98.7
Galice	000/00	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Opaline	00	100.6	100.3	98.3		99.9	101.0	99.4	99.8	99.1	99.8	99.5	100.4	99.9
Tourmaline	00	99.4	99.7	101.7		100.1	99.0	100.6	100.2	100.9	100.2	100.5	99.6	100.1
Aveline	000/00	93.1	97.8	90.4		92.0	95.4	92.5	95.4	91.5	97.3	91.9	96.2	94.0
Obélix	000/00	96.7	100.1	95.9		96.8	99.3	96.0	100.5	97.4	99.6	96.6	100.0	98.3
Protéix	00	92.7	94.3	94.1		95.5	95.1	93.9	90.2	92.3	91.7	93.7	93.2	93.5
Falbala	00	88.5	88.7	92.9		89.7	90.1	86.9	86.9	88.0	89.5	89.2	88.6	88.9
Toutatis	000/00	96.5	103.0	94.9		101.1	100.6	97.4	104.8	96.5	103.1	97.3	102.8	100.0
Abelina	000	105.1	101.6	104.4		103.8	101.3	101.4	103.3	102.8	101.5	103.5	102.1	102.8
Kalinka	000/00	101.2	102.8	98.2		101.4	100.8	96.1	102.6	99.6	102.1	99.3	102.1	100.7
Xena	000/00	98.1	104.5	98.4		101.9	99.3	98.2	102.7	97.4	100.9	98.8	102.2	100.5
Amandine	000/00	97.4	100.7	95.2		95.6	97.0	96.8	100.5	96.6	97.8	96.3	99.4	97.9
Témoins 000		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 000/00		100	100	100		100	100	100	100	100	100	100	100	100
Témoins 00		100	100	100		100	100	100	100	100	100	100	100	100
Moy. témoins		100	100	100		100	100	100	100	100	100	100	100	100

## Synthèse Soja 2

Synthèse 2 ans	Durée végétation écart en jours	Groupe précocité	Rdt. net	Rdt relatif	Rdt relatif	Verse	PMG	Protéines	Protéines	Huile	Huiles
			11 % H <sub>2</sub> O dt/ha	durée végétation %	groupe précocité %	(1=dressé) note	g	% MS	val. rel. %	% MS	val. rel. %
Maple Arrow	0	00	36.8	99	96	3	233	42.0	100	20.3	98
Merlin	-7	000	34.8	96	98	2	215	41.6	99	20.5	101
Gallec	-6	000	35.6	99	102	2	220	42.5	101	20.0	99
Galice	0	000/00	38.9	105	100	2	223	41.0	100	20.8	100
Opaline	0	00	39.7	106	103	3	219	41.5	99	20.6	100
Tourmaline	0	00	37.3	100	97	3	232	42.1	101	20.6	100
Aveline	-4	000/00	33.2	91	85	2	224	44.2	108	19.6	94
Obélix	-4	000/00	36.9	101	95	2	252	42.6	104	20.4	98
Protéix	2	00	37.8	101	99	3	212	44.8	107	19.3	93
Falbala	3	00	35.4	93	92	3	220	47.2	113	18.3	89
Toutatis	-4	000/00	37.6	103	97	2	219	40.9	100	20.8	100
Abelina	-5	000	36.7	100	103	2	221	42.0	100	20.8	103
Kalinka	-2	000/00	39.2	107	100	3	221	41.7	102	20.9	101
Xena	-2	000/00	38.6	105	99	2	225	41.1	100	20.9	100
Amandine	-4	000/00	35.3	95	90	2	222	42.6	104	20.3	98
Témoins 000			35.2			2	218	42.1		20.3	
Témoins 000/00			38.9			2	223	41.0		20.8	
Témoins 00			38.5			3	226	41.8		20.6	

Synthèse 2 ans	Durée végétation écart en jours	Groupe précocité	Rdt relatif	Verse	Protéines	Huiles	VAT
			durée végétation %	(bonus)	val. rel. %	val. rel. %	
Maple Arrow	0	00	99	-	-	-	99
Merlin	-7	000	96	-	-	1	97
Gallec	-6	000	99	-	-	-	100
Galice	0	000/00	105	-	-	-	105
Opaline	0	00	106	-	-	-	106
Tourmaline	0	00	100	1	-	-	101
Aveline	-4	000/00	91	8	-	-	99
Obélix	-4	000/00	101	4	-	-	105
Protéix	2	00	101	7	-	-	108
Falbala	3	00	93	13	-	-	106
Toutatis	-4	000/00	103	-	-	-	103
Abelina	-5	000	100	-	-	3	103
Kalinka	-2	000/00	107	2	-	1	110
Xena	-2	000/00	105	-	-	-	105
Amandine	-4	000/00	95	4	-	-	99

Rendement net à 11% H<sub>2</sub>O

