

Results 2018

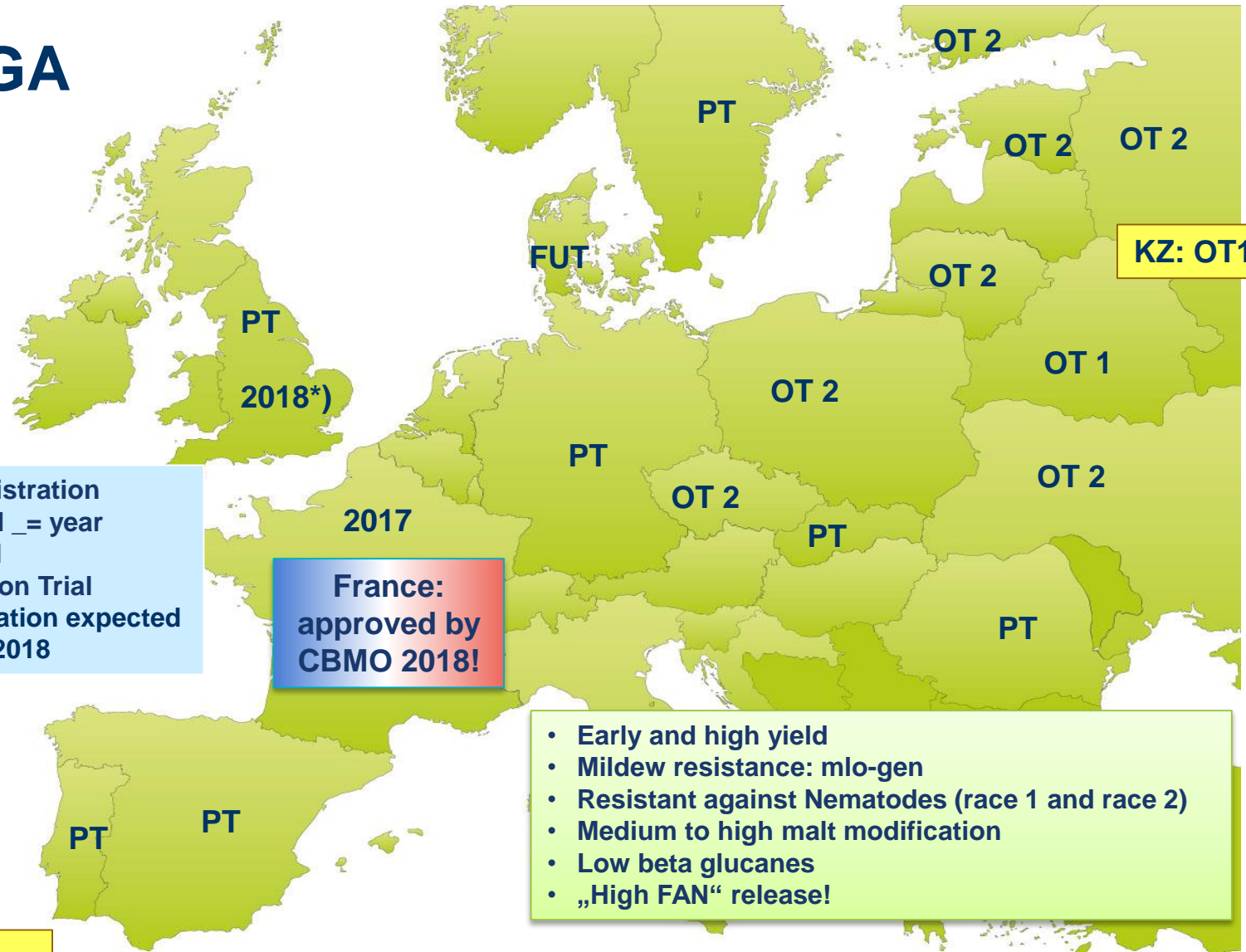
A new high FAN  
reference  
variety is born:



**FANDAGA**

# International registration status 2018

## FANDAGA



2017 Year of registration  
OT\_ Official trial \_= year  
PT Private trial  
FUT Farmer Union Trial  
) UK Registration expected IV.Quarter 2018

France:  
approved by  
CBMO 2018!

- Early and high yield
- Mildew resistance: mlo-gen
- Resistant against Nematodes (race 1 and race 2)
- Medium to high malt modification
- Low beta glucanes
- „High FAN“ release!

UY/AR: PT

# FANDAGA: Agronomical characters

## Agronomical profile (1 susceptible – 9 resistant)

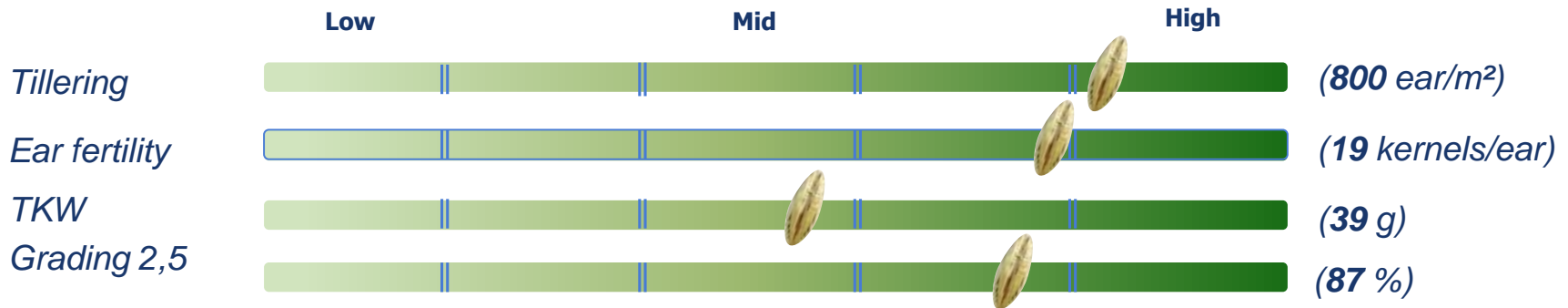
Ear emergence: **5 - mid late – early ripening**

Height of straw: **4 - short to mid**

Lodging resistance: **6 - medium to high**

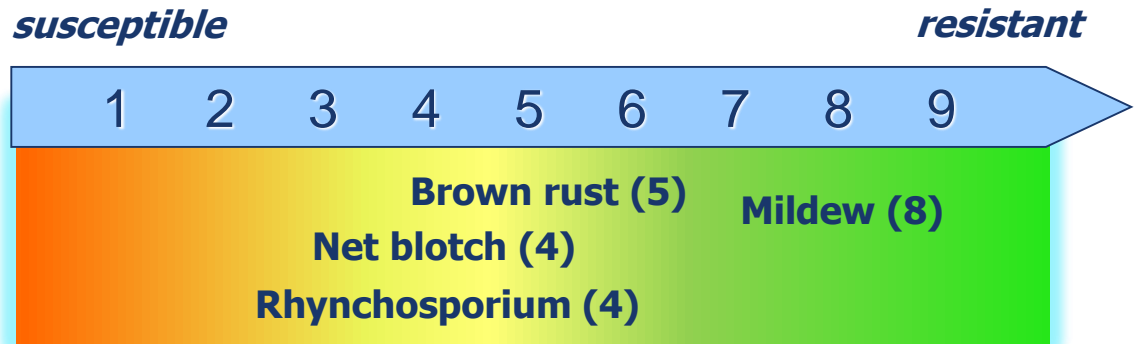
**Resistant against  
Nematodes  
(race 1 and race 2)!**

## Grain components



## Disease resistance

- Protection reducible
- Standard protection
- Protection obligatory



# FANDAGA: Harvest 2018

## Yield results Picardy, North of France



(no ranking was published within trial)	Yield (15% moisture)			TKW [g]	Spec. Weight [kg/ha]
	Untreated qt/ha	treated qt/ha	Yield rel % to checks		
RGT Planet	72,0	76,3	104,6	47,7	56,2
<b>FANDAGA</b>	<b>72,6</b>	<b>75,3</b>	<b>103,3</b>	<b>50,7</b>	<b>60,1</b>
Explorer	62,5	71,1	97,5	47,1	57,9
KWS Irina	62,9	71,1	97,5	45,5	54,6



Location: Barbery (Department 60)

3 reps treated + 1 untreated      sown: 26/03/18 by VAL'EPI 01


Previous crop: silage corn      border: RGT Planet

Sowing density: 300 grains / m<sup>2</sup>      Harvest 26.07.2018

# FANDAGA: Harvest 2018

Yield results



Rank (of 15)	Variety	Ear emergence	Yield treated [qt/ha]	Delta treated-non tr.	Moisture [%]	Spec. Weight [kg/hl] *	Protein [%]	Grading 2,5mm [%]
 2	<b>FANDAGA</b>	29-mai	70,2	5,2	11,1	60,4	11,5	87
4	KWS Irina	30-mai	69,8	16,7	11,4	57,6	11,8	88
5	RGT Planet	28-mai	69,7	9,7	11,3	60,5	11,6	91
14	Explorer	26-mai	64,2	4,9	11,1	60,5	11,6	84



## FANDAGA No 2 in this trial!

Location: Gaye (Department 51 "Marne")

Sowing density: 340gr/m<sup>2</sup>

Sowing date: 12 march 2018

Soil: chalk

Number of varieties: 15

Previous crop: sugar beet

# FANDAGA: Harvest 2018

## Yield results Ocelia



Rank	Variety	H <sub>2</sub> O	Yield			Spec. Weight [kg/hl]	Protein	TKW	Grading 2,5 mm
			treated 09/07/18	non treated	Delta t / nt				
		[%]	[qt/ha]			[%]	[%]	[g]	[%]
<b>1</b>	<b>FANDAGA</b>	<b>12,4</b>	<b>76,97</b>	<b>66,7</b>	<b>10,3</b>	<b>70,4</b>	<b>10,4</b>	<b>53,6</b>	<b>97,8</b>
7	RGT Planet	12,8	72,08	64,4	7,6	68,8	10,1	50,3	98,3
8	KWS Irina	12,8	71,97	58,2	13,7	67,7	10,3	49,8	96,3

### FANDAGA No 1 in this trial!

Location: Bois (Department 17 "Charente Maritime")

Sowing density: 370gr/m<sup>2</sup>

Sowing date: 26 February 2018

Emergence: 12 March 2018

Disease pressure: Rhynchosporiose / Helminthosporiose

Irrigation 1x 23 May 2018

Number of varieties: 19

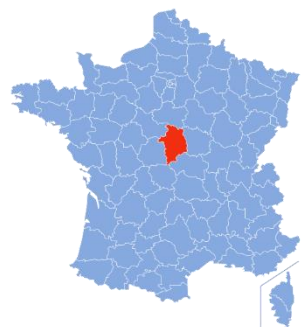




# FANDAGA: Harvest 2018 autumn sowing

## Yield results AXKEREAL

Ouverture : 100 % =79,9 qt / ha		Yield % Ouverture	Difference treated / untreated	Spec. Weight [kg/ha]	Protein [%]	Grading >2,5 mm [%]
Soil: clay loam						
Rank (19 varieties)						
4	<b>FANDAGA</b>	<b>109,5</b>	<b>32,1</b>	<b>68,7</b>	<b>9,7</b>	<b>95,4</b>
10	SEBASTIAN	105,0	29,5	69,5	9,3	94,0
12	EXPLORER	104,2	31,0	68,8	9,4	94,1
15	RGT PLANET	102,8	29,9	67,8	9,7	95,4
17	OVERTURE (T)	100,0	24,5	66,0	9,6	89,0



**FANDAGA suits to autumn sowing as well!**

Location: Le Subdray (Department 18"Cher")

# FANDAGA : Arvalis trials France 2018

Préc. épiaison	Avis Malterie	VARIETES	Rendement à 15% validé		REGULARITE - Rendement à 15% validé			
			Q/ha	% MG.	moyenne et écart-type en q/ha			
			65	70	75	80		
5	Obs 2	KWS Fantex	76,6	105				
5	Obs 1	Fandaga	76,4	104				
5	Val	Focus	76,0	104				
5.5	Préf	RGT Planet	75,4	103				
5.5	Préf*	Explorer*	74,1	101				
5,5	Val	Revanche	73,2	100				
5	Val	RGT Orbiter	73,1	100				
5	Préf	KWS Irina	73,0	100				
5	Val	Liberta	72,8	99				
6	Obs 1	Esma*	72,7	99				
4.5	Obs 1	Laureate	72,4	99				
5.5		Fatima	72,3	99				
4.5	Obs 1	RGT Asteroid	71,6	98				
5	Obs 1	Ellinor	71,4	97				
5	Préf	Sebastian*	68,2	93				
Moy. Générale			73,3					
ETR			3,5		La longueur des barres illustre la régularité de la variété par rapport à l'ensemble des variétés testées, elle est égale à 2 écarts-types.			
Nombre d'essais			8					

\* : données estimées dans un ou plusieurs lieux

**FANDAGA is on rank 2 of french Arvalis trials 2018**



# France: Arvalis trials

Results 2017-2018

2017 (7 locations)				2018 (8 locations)			
Level	Variety	Yield [qt/ha]	Yield % 15% H <sub>2</sub> O	Level	Variety	2018 [qt/ha]	Yield % 15% H <sub>2</sub> O
(feed)	Etoile (1)	76.1	104	Observation 2	KWS Fantex	76,6	105
Observation 1	KWS Fantex	75.3	103	<b>Observation 1</b>	<b>FANDAGA</b>	<b>76,4</b>	<b>104</b>
Preferred	RGT Planet	75.3	103	Validation	Focus	76,0	104
	CHEPHREN	75.1	103	Preferred	RGT Planet	75,4	103
Observation 1	Fatima	74.0	101	Preferred	Explorer*	74,1	101
Validation	Laureate	73.9	101	Validation	REVANCHE	73,2	100
Preferred	KWS Irina	73.5	101	Validation	RGT Orbiter	73,1	100
<b>Validation</b>	<b>FANDAGA</b>	<b>73.3</b>	<b>100</b>	Preferred	KWS Irina	73,0	100
Observation 2	SANGRIA	72.9	100	Validation	Liberta	72,8	99
Validation	RGT Asteroid	72.8	100	Observation 1	ESMA*	72,7	99
Validation	Ellinor	72.6	100	Observation 1	Laureate	72,4	99
Validation	ESMA	72.5	99		Fatima	72,3	99
Preferred	Explorer	69.9	96	Observation 1	RGT Asteroid	71,6	98
	Marylin	69.6	95	Observation 1	Ellinor	71,4	97
Preferred	Sebastian	67.0	92	Preferred	Sebastian*	68,2	93
	Yield mean	72.9			Yield mean	73,3	
	SD Value	3.2			SD Value	3,5	

\*) estimated in one or several locations

# FANDAGA : Yield Denmark 2018

FUT 2018 Locations: N=4	Yield rel [%]	Protein d.m. [%]	Grading, >2,5mm [%]	Yield, [qt / ha]
<b>FANDAGA</b>	<b>99</b>	<b>12,3</b>	<b>98,0</b>	<b>61,6</b>
KWS Irina	98	12,3	99,9	61,0
RGT Planet	98	12,1	98,8	61,3
Blend of 4 varieties*)	100	12,1	98,3	62,3

\*) Blend :Flair, KWS Cantton, Laurikka, RGT Planet

# FANDAGA: Poland 2017 - 2018

Coboru List = official trials

Variety name	Yield % untreated			Yield % treated		
	2018	2017	mean	2018	2017	mean
Control yield [qt / ha]	54,3	65,5		62,7	78,6	
<b>FANDAGA</b>	<b>100</b>	<b>101</b>	<b>100,5</b>	<b>98</b>	<b>102</b>	<b>100</b>
Olympic	100	94	97	101	96	98,5
Radek	98	102	100	97	100	98,5
RGT Planet	99	101	100	99	101	100

**FANDAGA competes with leading european varieties in Poland !**

# FANDAGA: Malt quality

Official trials France, CTPS 1 + 2 – 2015 + 2016

	Sebastian	Odyssee	FANDAGA		Techn. Class **
			2015	2016	
Moisture content [%]	4,4	4,4	4,3	4,3	
Extract [% d.m.]	82,4	82,8	83,0	83,3	105
Colour EBC	3,5	3,0	3,9	4,6	
pH	6,03	5,98	5,9	5,95	
Total Protein [% d.m.]	10,3	10,1	9,4	9,7	100
Soluble Protein [% d.m.]	4,05	4,15	4,6	5,13	
Kolbach Index	40	41	50	53	
Diastatic Power [WK]	313	266	278	308	100
Viscosity [mPaS]	1,60	1,57	1,5	1,48	115
Friability [%]	81	85	97	97	105
Beta Glucanes [mg/l]	233	242	37	53	115
** Technological class: A : $\geq 103$ ; B : $\geq 99$ et $< 103$ ; C : $< 99$					A = 106

# FANDAGA France 2018: CBMO approval



Le 2 février 2018



## COMMUNIQUE DE PRESSE PRESS RELEASE

### COMITE BIERE MALT ORGE C.B.M.O BARLEY, MALT, BEER COMMITTEE

#### CHOIX DES NOUVELLES VARIETES D'ORGES DE BRASSERIE A TESTER EN PILOTE BRASSERIE ET MALTERIE CHOICE OF NEW MALTING BARLEY VARIETIES TO BE TESTED IN BREWING AND MALTING PILOTS

Lors du Comité Bière Malt Orge du 02 février 2018, les décisions suivantes ont été prises :  
*During the Barley Malt Beer Committee on February 2<sup>nd</sup>, 2018 the following decisions were taken:*

- Les variétés à 2 rangs de printemps LIBERTA et RGT ORBITER seront testées en pilote par le CBMO sur la campagne 2018.
  - Les variétés d'hiver (6 rangs) KWS FARO et MARGAUX seront testées en pilote par le CBMO.
  - Les variétés à 2 rangs de printemps FOCUS et AC 12-689-19 peuvent être testées en pilote si l'obteneur le souhaite.
  - La variété d'hiver (6 rangs) SONATA peut être testée en pilote si l'obteneur le souhaite.
- The 2 row Spring (2RS) varieties, LIBERTA and RGT ORBITER will be tested in the pilot facility by the CBMO on the crop 2018.*  
*- The Winter varieties (6 rows) KWS FARO and MARGAUX will be tested in pilot facility by the CBMO.*  
*- The 2 row Spring (2RS) varieties FOCUS and AC 12-689-19 can be tested in the pilot facility at the breeder request.*  
*- The 6 row Winter (6RW) variety SONATA can be tested in the pilot facility at the breeder request.*

#### HOMOLOGATION DES NOUVELLES VARIETES D'ORGES DE BRASSERIE APPROVAL OF NEW MALTING BARLEY VARIETIES

Lors du Comité Bière Malt Orge du 02 février 2018, les décisions suivantes ont été prises :  
*During the Barley Malt Beer Committee on February 2<sup>nd</sup>, 2018 the following decisions were taken:*

- Les variétés à 2 rangs de printemps inscrites en janvier 2017 : ELLINOR, ESMA, FANDAGA, LAUREATE et RGT ASTEROID sont homologuées en Brasserie.
- *The 2 row Spring varieties registered in January 2017: ELLINOR, ESMA, FANDAGA, LAUREATE et RGT ASTEROID are approved for brewing by the CBMO.*

#### BRASSEURS ET MALTEURS DE FRANCE

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Monsieur Luc DIDIERJEAN: (45) 41 79 53 11

# FANDAGA: Evaluation in Heineken Group 2018



Global Supply Chain  
Rules, Standards & Procedures

FANDAGA may be tested globally!



2-row spring for A, B, UK and CCM-malt		2-row winter and UK- malt
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	MARGRET (Portugal)	C[REDACTED]E)
AR[REDACTED]ay)	ANA (Brazil)	L[REDACTED]i)
BR[REDACTED]co)	[REDACTED]	MC[REDACTED]a)
BI[REDACTED]us)	[REDACTED]	T[REDACTED]l)
SC[REDACTED]Mexico)	[REDACTED]	
[REDACTED]0-lox)	PR[REDACTED]ico)	<b>6-row winter</b>
CHANSON (0-lox)	[REDACTED]	[REDACTED]
[REDACTED]0-lox)	PU[REDACTED]ugal)	HIRONDELLA
CON[REDACTED]nd/UK)	RUSALKA (Austria)	[REDACTED]
[REDACTED]S	[REDACTED]l)	[REDACTED]
[REDACTED]	SANGRIA	
DANIELLE (Uruguay)	[REDACTED]	
D[REDACTED]us)	SC[REDACTED]a)	
FANDAGA	[REDACTED]	

# FANDAGA: Agricultural Award, Russia 2018



Cattle breeding plant "Lenin's Way"  
Department of the State Commission of the Russian  
Federation  
for the examination and protection of breeding results  
for the Leningrad region

## DIPLOMA OF HONOR

is awarded to the winner of the competition program  
of the event of regional significance

### "Varieties' Day 2018"

in the nomination "Alternative Selection 2018"  
according to the version of the agricultural producers  
of the Leningrad region  
the employees of German Seed Alliance  
or the unique breeding of the

variety FANDAGA

Signed by  
\* Director General of the  
Cattle Breeding Plant "Lenin's Way": O. Lampel  
\* Head of Department  
of Variety Commission in Leningrad region: A. Vagin



# FANDAGA: Summary

- **Mid - early variety with high yield**
- **Tolerant against drought stress**
- **Good productivity**
- **Resistance against Nematodes**
- **Very good mildew resistance**
- **Tolerance against rhynchosporium and net blotch**
- **Very good grading**
- **High FAN release**
- **Flexible malting with various steep out moistures**
- **CBMO approved 2018**
- **Put on Heineken „yellow list“ May 2018**





# Contact

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