

CONVENTIONAL AND ORGANIC FARMING

INTERNATIONAL CATALOGUE



99

Innovation and commitment to transition and the challenges of the agriculture industry

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OFFERING USEFUL AND SUSTAINABLE SOLUTIONS FOR FARMERS AND THEIR INDUSTRY

At Lemaire-Deffontaines, we have been selecting varieties of straw cereals and protein crops for 7 generations.

We have prioritised the improvement of yield as well as the tolerance to disease.

Today, environmental constraints, societal pressure and climate issues are more and more important and confirm our areas of work and our anticipation of these changes. Moreover, in an ever increasingly uncertain geopolitical context, it has become necessary to provide sufficient and qualitative production volumes to access highly demanding markets that are more and more divided and competitive.

STRATEGIES AND SELECTION CHOICES DICTATED BY THE EVOLUTION OF OUR ENVIRONMENT

Firstly, we decided to diversify our selection programmes by taking an interest in new species, new openings and new protection methods.

As we are aware that genetics is the main lever in adapting varieties to climate change and bioaggressors, this year, we have acquired a new genetic fund and created a new research station in the centre of France to select the most mature varieties and study their behaviour towards increasing temperatures. The health quality of seeds is also one of our priorities and we have a range of triticale and winter wheat varieties among the least sensitive to fusarium and the accumulation of mycotoxins.

AGROECOLOGY AND LOW CARBON STRATEGIES AT THE HEART OF OUR CONCERNS

We are committed to innovation and want to provide you with concrete solutions in terms of diversity and complementarity of species and varietal traits, adaptation to agroecological practices, to make our production systems more resilient and preserve natural resources.

We are paying close attention to the national strategy to lower carbon to contribute to the reduction of greenhouse gas emissions. We are working on the efficiency of nitrogen varieties and the varietal improvement of the least demanding species in terms of inputs and their capacity to produce biomass for the production of decarbonised energy

THE WINTER WHEATS



Wheat for milling: ARCACHON, CROSSWAY, ANDORRE, ALLSOME ...



Early wheats: COMILFO, DIMARCO, KUPA ...



Biscuit wheat: COSMIC, ADRIATIC, NUMERIC...



Wheat for organic farming: LD CHAINE, LD VOILE, LD GUSTE... Environmental constraints, societal pressure, climate change, sustainability of production, agroecology, segmentation and emergence of new markets are now as important as other choice criteria that were orientated exclusively to the tolerance to diseases and productivity for a long time.

Aware of these changes, LEMAIRE DEFFONTAINES has diversified and reinforced its selection programmes and have recently acquired a new genetic pool,

as well as the creation of a new research station in the Centre region of the France to offer winter wheat varieties that meet the needs expressed by the producers and their difference sectors. The varieties are offered in different ranges according to their technological qualities, their production methods and their use.

BISCUIT WHEAT: A SPECIFIC PART OF THE MARKET

Biscuit wheat has particular technological characteristics. They are soft wheats with low baking strength and elongated alveograms and a lower protein content. In 2024, biscuit wheat represented less than 1% of French soil and few varieties are offered at registration.

However, they are indispensable to several companies in the production of specialities that are part of the culinary heritage, and sweet and savoury biscuits with a crunchy and light texture with correct dimensions. We have an entire range of varieties recognised by industries and adapted to these different markets.



ARCACHON

Wheat from major cereal growing areas

- Early superior bread wheat
- Variety recommanded by the French milling industry
- Very good yield potential: 103.1% of registration controls
- Very good ear fertility
- Variety fairly resistant to lodging
- Good cold tolerance
- Good disease tolerance profile: yellow rust, powdery mildew and septoria tritici blotch
- · Fairly high specific weight







ALLSOME

The variety that brings together yield, quality and tolerance to disease

- New, superior bread wheat winter ½ later ½ early
- Very good yield potential, 116% of registration controls in Belgium
- A fairly short variety with low sensitivity to lodging and good tolerance to the cold
- · Good resistance to disease
- · Fairly high protein content
- · High specific weight

AUCHY

The artisan of beautiful harvests

- New, superior bread wheat ½ winter ½ early
- Good yield potential: 100.9% of registration controls in France
- Two key genes: resistance to mosaic and tolerance to gall midge orange
- Quite small variety that is quite resistance to lodging and the cold
- High specific weight
- Quite high protein content and good capacity to concentrate nitrogen in the seeds (GPD score 6)

CHESSUM

Superior bread wheat, winner on all grounds

- New, superior bread wheat winter ½ later ½ early
- Very good yield potential to registration in Belgium: 106.8% of controls
- · Excellent ear fertility
- A fairly short variety with low sensitivity to lodging
- Very good disease resistance
- Good specific weight

WHEATS

		10					Accidents in vegetation		
	VARIETIES	Beardedness	Alternativity	Precocity of bolting	Precocity of heading	Tillering	Height	Lodging	Cold
	ACROBATIC •	В	3	2	6.5	AVERAGE	FAIRLY SHORT	5	6
	ALESSIO A	В	2	2	5.5	AVERAGE	AVERAGE	5.5	7
	ALLSOME •	NB	2	2	6	FAIRLY STRONG	SHORT TO AVERAGE	6.5	7
	ANDORRE	NB	3	2	6.5	FAIRLY STRONG	FAIRLY SHORT	5.5	6,5
ES	ANTIBES	NB	4	2	6	FAIRLY STRONG	FAIRLY SHORT	7.5	6.5
E	ARCACHON	NB	3	4	7	AVERAGE	SHORT	6.5	6
R	AUCHY •	NB	4	3	6.5	AVERAGE	FAIRLY SHORT	6.5	6.5
>>	AVIGNON	В	2	3	6	FAIRLY STRONG	AVERAGE	6	6
DEFFONTAINES VARIETIES	BROADWAY	NB	2	2	5.5	AVERAGE	AVERAGE	6	6.5
Z	CHESSUM •	NB	2	2	6	AVERAGE	SHORT TO AVERAGE	6	6
Ż	COMILFO	В	3	4	7	AVERAGE	FAIRLY SHORT	5.5	5.5
H	COSMIC	NB	3	2	7	AVERAGE	SHORT	6	5
	DIMARCO	NB	4	2	8	AVERAGE	SHORT	5.5	6
8	FEELING A	В	9		6	FAIRLY STRONG	AVERAGE	5	3
LEMAIRE	HASHTAG •	NB	9		6.5	FAIRLY STRONG	SHORT	6	5
9	KUPA •	В	2	3	7	AVERAGE	SHORT TO AVERAGE	6	5
	LD CHAINE A	В	3	3	6.5	FAIRLY STRONG	FAIRLY SHORT	5.5	6
	LD GUSTE ●▲	NB	3	3	6.5	FAIRLY STRONG	SHORT TO AVERAGE	5.5	6
	LD VOILE A	В	3	3	6.5	AVERAGE	FAIRLY HIGH	5	6
	RECIPROC	В	3	3	6.5	AVERAGE	AVERAGE	5	5.5

ERENCE	CHEVIGNON	NB	3	2	6	AVERAGE	FAIRLY SHORT	6	6.5
	CROSSWAY	NB	2	2	5	FAIRLY STRONG	AVERAGE	6.5	7
REF	NUMERIC A	NB	3	3	7	AVERAGE	AVERAGE	6	6.5

LEGENE

Varieties available as organic seed.

New

Alternativity: from 1 = very winter to 9 = spring

Precocity of flowering: from 5 = late to 8 = very early

Diseases and accidents in vegetation: 1=very sensitive, 2=sensitive, 3=fairly sensitive to sensitive, 4=fairly sensitive, 5=fairly sensitive to not very sensitive, 6=not very sensitive, 7=not very sensitive to fairly resistant, 8=fairly resistant to resistant, 9=resistant.

* Currently known and studied strains

Resistance to diseases*					Quality			0	the		
Eyespot	Yellow rust	Brown rust	Powdery mildew	Fusarium head blight	Septoria tritici blotch	SW	Proteins (GPD)	Class	Resistance to midge	Resistance to chlortoluron	Resistance to the mosaic virus
3	7	7	4	4.5	5.5	5	4	BW	S	Т	
4.5	8	7	6.5	6	6	9	7	SW	S	Т	S
3	7	6	7	5	6.5	6	6	SBW	S	Т	S
3	7	7	8	5	6	8	4	SBW	S	Т	R
4	8	6	6	5	6.5	5	4	SBW	S	Т	S
3	7	6	7	5	6	6	5	SBW	S	Т	S
3	6	5	6	5.5	6	6	6	SBW	Т	Т	R
2	7	4	6	4	5.5	7	6	SBW	S	Т	S
6	7	6	7	5	6.5	7	6	SBW	S	Т	S
3	7	5	6	5	6.5	6	5	SBW	S	Т	
3	4	6	6	5	5	6	5	SBW	S	S	S
3	6	6	6	5	4.5	3	4	BW	S	Т	S
3	6	7	6	5	6.5	7	5	BW	S	Т	R
3	4	6	8	5	6	7	6	SBW	S	Т	S
3	6	7	6	5	6	6	4	BW	S		S
	7.5	7	7	6	5	7	5	SBW	S	Т	
2	7	7	7	6.5	6	6	4	SBW	S	S	S
3	6	6	6	6	5.5	4	5	BW	S		
3	5	6	7	6.5	5.5	9	9	SBW	S	Т	S
3	4	7	6	4	6	6	5	BW	S	S	S
3	7	6	6	5	7	5	6	SBW	S	Т	S
2	7	4	6.5	5	6.5	5	5	SBW	Т	Т	S

6

BW

3

NOTE:
The information provided in this document is for guidance only and may vary according to agronomic and climatic conditions and cultivation techniques.
Disease resistance concerns only those diseases and strains currently known and studied in France.



THE TRITICALES



A PLANT FOR TRANSITION

A man made species created 60 years ago, triticale has become the 3rd most cultivate straw cereal after wheat and barley. Triticale is a species that is particularly well appreciated by farmers for its yield in seeds and straw as well as its hardiness.

Its low requirement in nitrogen and chemical inputs, and its biomass production potential for methanisation, all make triticale a well adapted plant for the ecological and energetic transition issues that contribute to the decarbonisation of these activities.

By registering BIENVENU, the first early variety of the catalogue and by selecting for lodging resistance, ease of threshing, potential, grain quality and disease tolerance, we have corrected the species' defects and have become the leader in France. We have a large range of lines with complementary characteristics and our varieties BICROSS and BIATHLON are now among the most propagated in France.







KITESURF

Ride the wave of success

- Triticale ½ alternative ½ early with high vigour
- Very good yield potential
- Strong vegetative development and high biomass production
- Fairly high specific weight
- Very good resistance against powdery mildew and yellow rust
- Fairly good cold and lodging tolerance
- · Fairly high protein content

BILBOQUET

For stability and diseases tolerance

- Triticale ½ alternative ½ early
- Very good yield potential: 103% of registration controls
- Fairly high specific weight
- Very good health status, especially with regard to powdery mildew and rust
- Good cold and lodging tolerance
- Fairly high protein content

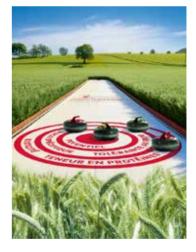
BICROSS

Productive and diseases tolerance

- Triticale ½ alternative ½ early with very good yield potential: 105.4% of registration controls
- Very high specific weight, 104.7% of controls
- Very good resistance against powdery mildew and rust
- Very high protein content, 103.8% of controls







BONJOUR

Alternative, diseases resistance, and ideal for organic farming

- Alternative and early triticale with a good yield level
- Rather tall triticale with a strong vegetative development and high biomass production
- · Good lodging resistance
- High resistance to mildew, yellow and brown rust and scald
- High protein content (108 % of controls at listing)
- · Rather high specific weight

BIATHLON

Gold medal for performance and resilience

- Triticale ½ alternative ½
 early
- Very good yield potential: 108.5% of registration controls
- Very good resistance against disease
- Very good tolerance to the accumulation of DON
- Very high specific weight, 1 registration bonus

CURLING

Productivity and agronomic advantages, aim for excellence

- New, triticale ½ winter ½ late to ½ early
- Very good yield potential: 105.1% of registration controls
- A fairly tall variety
- Good cold tolerance and to disease

RITICALE

	DON Tolerance	6.5	6.5		4	2	4.5		4.5	5.5		8
								9		2 5.	9	
	Viscosity	3.5	23		2.6	4.1	2.2	2.6	2.2	2.2	2.6	
Quality	Proteins (GPD)	rC	7		7	4	7	∞	2	9	rC	
<u></u>	SW	6	∞		7	2	9	4		7	7	
	Scald	∞	9	2	7	72	9	9	5.5	7	4	7
	Septoria tritici blotch	7	7	9			7		5.5			7
seases*	Fusarium head blight	7	5.5	4			4.5	7				7
ce to di	Powdery mildew	7	7	6	4	7	ω	œ	6.5	9	7	7
Resistance to diseases*	Brown rust	7	æ	6	9	∞	9	œ	6.5	9	ιΩ	7
_	Yellow rust	∞	8	æ	æ	8	æ	7	7	œ	∞	8
	Eyespot		2	5			2		4.5		4	7
ints in ation	Cold	22	5.5	9	9	7	5.5	9	7.5	4.5	5.5	6.5
Accidents in vegetation	Lodging	9	9	7	6.5	6.5	6.5	4.5	6.5	9	52	9
	Height	HIGH	HIGH	HIGH	AVERAGE	FAIRLY HIGH	FAIRLY HIGH	FAIRLY HIGH	HIGH	AVERAGE	HIGH	HIGH
Pi	recocity of heading	6.5	6.5	7.5	ω	9	7	9	7	7.5	6.5	7
F	Precocity of bolting	м	4		2	1	2	2	23	5	4	4
	Alternativity	9	9	6	ω	9	7	4	4	7	7	9
	VARIETIES	BIATHLON ●■	BICROSS ●■	BIENVENU	BIKINI▲■	BILBOQUET ▲	BONJOUR • •	CURLING • A	DICAPRIO ▲	JOKARI ▲■	KITESURF ▲■	TREECKO •
					LEMAIRE	DEFFONTAINES	VARIETIES					

		9			
	9				
	7	æ			
	œ	7			
	4	8			
		2			
	7	9			
	5.5	7			
	HIGH	SHORT			
	9	9			
	23	2			
	4	2			
LUMACO	PZO TENDER ■	PRESLEY			
REFERENCE					

3.6

9 2

> Alternativity: from 1 = very winter to 9 = spring(): to be confirmed.

Varieties available as organic seed. New.

LEGEND

Biomethanisation orientation

The information provided in this document is for guidance only and may vary according to agronomic and climatic conditions and cultivation techniques. Disease resistance concerns only those diseases and strains currently known and studied in France.

2=sensitive, 3=fairly sensitive to sensitive, 4=fairly sensitive, 5=fairly sensitive to not very sensitive, 6=not very sensitive, 7=not very sensitive to fairly resistant,

8=fairly resistant to resistant, 9=resistant. * Currently known and studied strains

Precocity of flowering: from 5 = late to 8 = very earlyDiseases and accidents in vegetation: 1=very sensitive,

CIVE and methanisation

Cultures Intermédiaires à Vocation Énergétique (Cover Crops for Energy Production)

Our selection of species and varieties adapted for biomass production

TRITICALES:

BIKINI

- Triticale alternative very early
- Reference in methanisation

BICROSS

 Triticale ½ alternative ½ early with very good yield potential

JOKARI

- Early triticale alternative
- High production potential

BIATHLON

- Efficient as Olympics
- Triticale ½ alternative ½ early
- Very good yield potential

KITESURF

- Triticale alternative ½ early
- Vigorous variety with a high potential biomass production

BONJOUR

 Rather tall triticale with a strong vegetative development and high biomass production

CIVES OR COVER CROPS FOR ENERGY PRODUCTION

are planted between two main crops and are used for methanisers. They are a major resource for ecologic and energetic transitioning.

For the farmer, the concern is to harvest as much biomass as possible without impacting the production potential of the main crops.

The choice of species must be adapted to the cultivation context: cultural succession and the pedoclimatic context.

The potential methanogenic differences between different species are generally low. In a addition to the species, the technical itinerary helps to optimise the biomass yield, which is a main factor in the methanogenic yield of a field.

LEMAIRE DEFFONTAINES offers different species and varieties of cereals adapted to methanisation and can be cultivated alone or mixed with others. These varieties provide both a high yield and a high level of dry matters



New varieties that are performant and tolerant to BYDV.

LEMAIRE DEFFONTAINES, a historic breeder of high-potential feed barley varieties, is back on the road to success with the registration of ALIENOR in 2023 and OVALIE in 2024, two varieties tolerant of BYDV, characterised by their good yield potential, their seed quality and their very good health aspect. FRIMOUSSE, a brewing-oriented variety and this year's newcomer, completes the range.



	JNO (Barley yellow dwarf)	⊢	⊢	F	⊢	⊢	S	S
*	Rumularia leaf spot	9	5	7	9	2	9	4
to diseases	Mosaic	⊢	F	-	⊢	F	⊢	⊢
Resistance to diseases*	Scald	2	5	7	7	7	9	9
	Leaf rust	7	5	7	2	9	7	ις
	Powdery mildew	5.5	7	9	4	2	7	Ŋ
Accidents in vegetation	Frost	7	6.5	5	2	9	7	6.5
Accide	Lodging	6.5	9	6.5	9	5.5	9	4.5
	Height	AVERAGE	AVERAGE to HIGH	AVERAGE to HIGH	AVERAGE to HIGH	AVERAGE	AVERAGE	AVERAGE
	Precocity	9	8	7.5	7	7.5	6.5	7.5
	Alternativity	2	3	3	9	2	9	9
N	lumber of rows	9	2	9	9	9	2	9
	VARIETIES	ALIENOR ▲■	ARDENTE ■	FERIA ▲■	FRIMOUSSE =	OVALIE ▲■	TERRAVISTA ▲■	TOUAREG ■
				LEMAIRE	DEFFONTAINES	VARIETIES		

2

9

2

4

ETERNEL A

REFERENCE VARIETIES



TERRAVISTA

For new horizons

- Winter feed barley ½ late to ½ early
- Good yield potential: 102.5% of registration controls
- Medium-sized variety with good tolerance to cold and lodging
- · Very good disease resistance
- · High specific weight



ALIENOR

The history of a great line

- Feed bere with very good potential: 108.5% of registration controls
- Variety ½ early tolerant to BYDV
- Good resistance to diseases and small difference between treated and nontreated
- Good specific weight and very good seed quality



FRIMOUSSE

Brewing variety

- New feeding bere with malting quality and tolerante to BYDV
- New 6 rows barley for forage or malting
- Tolerant to yellow dwarf virus (BYDV)
- Early variety at heading
- Very good yield potential
- Good resistance to lodging and good resistance to scald
- High specific weight and very good calibration



ÉTERNEL

Productive bere tolerant to BYDV

- Feed bere registered in France
- Tolerant to barley yellow dwarf disease
- Early variety with good yield potential: 103.4% of registration controls
- Quite good tolerance to diseases
- · Very good specific weight

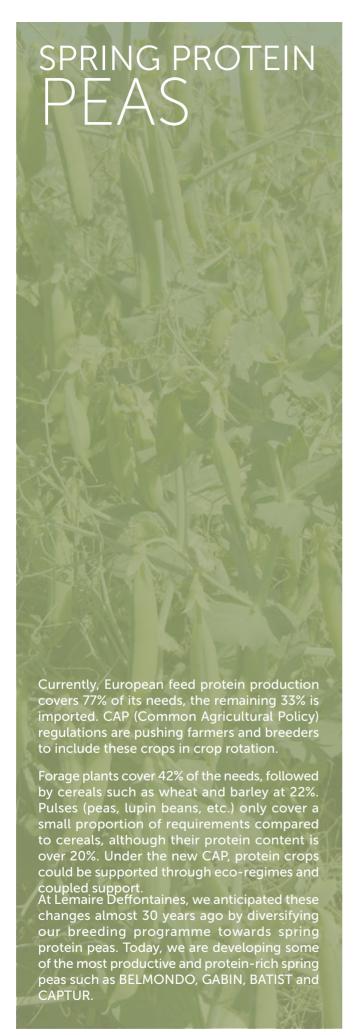


OVALIE

Potential, agronomy and seed quality: touch perfection!

- New, feed bere tolerant to BYDV
- Very productive early variety, 108.5% of registration controls
- Good resistance to lodging
- Very good resistance to scald and rumularia
- High specific weight and very good seed quality







BATIST

- Spring peas with yellow grain
- Very good yield potential: 106% of registration controls
- Excellent results in the 2021 trials
- ½ early variety, fairly high at harvest
- Above-average protein content



CORTEX

- New in 2023: Protein peas with yellow grain
- Excellent yield potential: 110.1% of controls
- Fairly early variety with good stem strength in vegetation and at harvest
- Medium protein content



GABIN

combines performance and good stem holding

- Spring peas with yellow seed
- Good yield potential: 101,9% of registration controls
- ½ early variety with good stem strength in vegetation and at harvest
- Medium protein content

SPRING PROTEIN PEAS

24

Height at harvesting Height at end of flowering Precocity of maturity Precocity of flowering	E 1/2 E HIGH HIGH	1/2 E HIGH HIGH	1/2 E HIGH HIGH HIGH	1/2 E HIGH HIGH HIGH	1/2 E HIGH FAIRLY HIGH	1/2 E FAIRLY HIGH HIGH	1/2 E HIGH HIGH
VARIETIES	ANGELUS	BATIST	CAPTUR yellow	CORTEX	GABIN yellow	MASSKO yellow	PROSPER yellow

Σ	۵
I	ΗΛ
Ι	ΗΛ
1/2 P	AP
1/2 P	1/2 P
green	yellow
GREENWAY	ROCKET
REFERENCE	VARIETIES



agronomic and climatic conditions only and may vary according to only those diseases and strains currently known and studied in France. and cultivation techniques. Disease resistance concerns

NOTE: The information provided in this document is for guidance

(): to be confirmed.

Varieties available as organic seed.

Biomethanisation orientation Available abroad.

Precocity of flowering: from 3 = half-late to 8 = early to Alternativity: from 1 = very winter to 9 = spring

sensitive, 5=fairly sensitive to not very sensitive, 6=not very sensitive, 7=not very sensitive to fairly resistant, Diseases and accidents in vegetation: 1=very sensitive, 2=sensitive, 3=fairly sensitive to sensitive, 4=fairly 8=fairly resistant to resistant, 9=resistant. very early

* Currently known and studied strains





CONVOITISE

- · Large spelt registered in Belgium
- Very good yield potential: 106% of registration controls
- · Good baking quality
- Very good disease tolerance, suitable for organic farming



COURTOISE

New productive variety

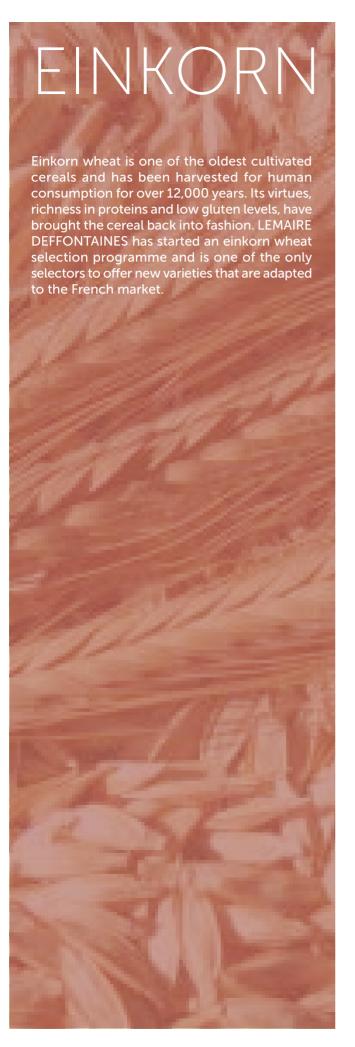
- New variety registered in Belgium at the end of 2023
- Variety ½ late ½ early with very strong tillering
- Good resistance to yellow rust, septoria leaf spot and powdery mildew
- Very good yield potential



SÉRÉNITÉ

Cultivation management without issue

- Variety ½ late registered in Belgium
- Fairly tall
- Good baking quality
- Very good health profile
- Very good yield potential





LD BALLE

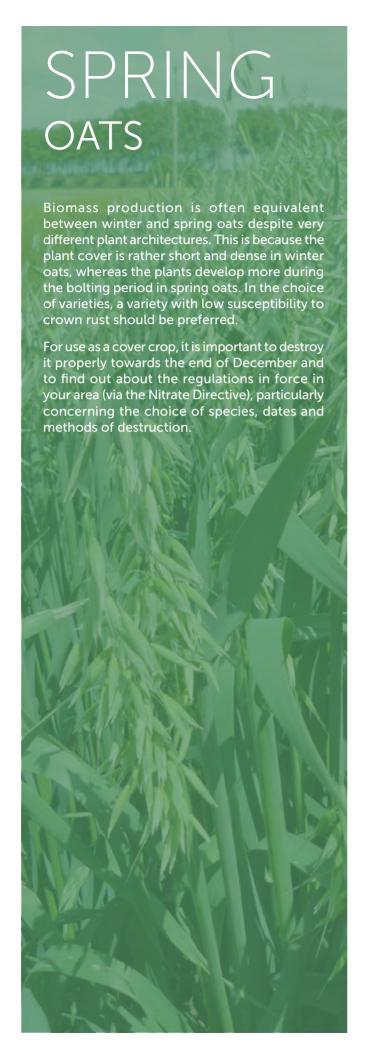
New variety

- Alternative type small spelt
- Variety with good yield potential
- Good tolerance to diseases
- Medium to tall size variety, not very sensitive to lodging



LD PHI

- Triticum monococcum registered in Germany
- Very good yield potential and good stem strength in contrast to existing varieties
- Good baking quality combined with the benefits of low gluten
- Yellow flour with high protein content
- Very good resistance, resistant to major diseases
- Suitable for organic and extensive farming, as well as for dry and difficult conditions.





JOUVENCE

- White oats ½ early (DUFFY type)
- Medium size, not very sensitive to lodging
- Very good yield potential: 102.2% of registration controls
- Good tolerance to diseases
- TGW fairly high and good kernel content

NOTES





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