



# AGRISEM®

INTERNATIONAL

## n.1 worldwide



AGRONOMY

ECONOMY

ENVIRONMENT

Soil  
conservation  
procedure

## For mankind, agronomy and innovation...



*Creator of equipment for sustainable agriculture*



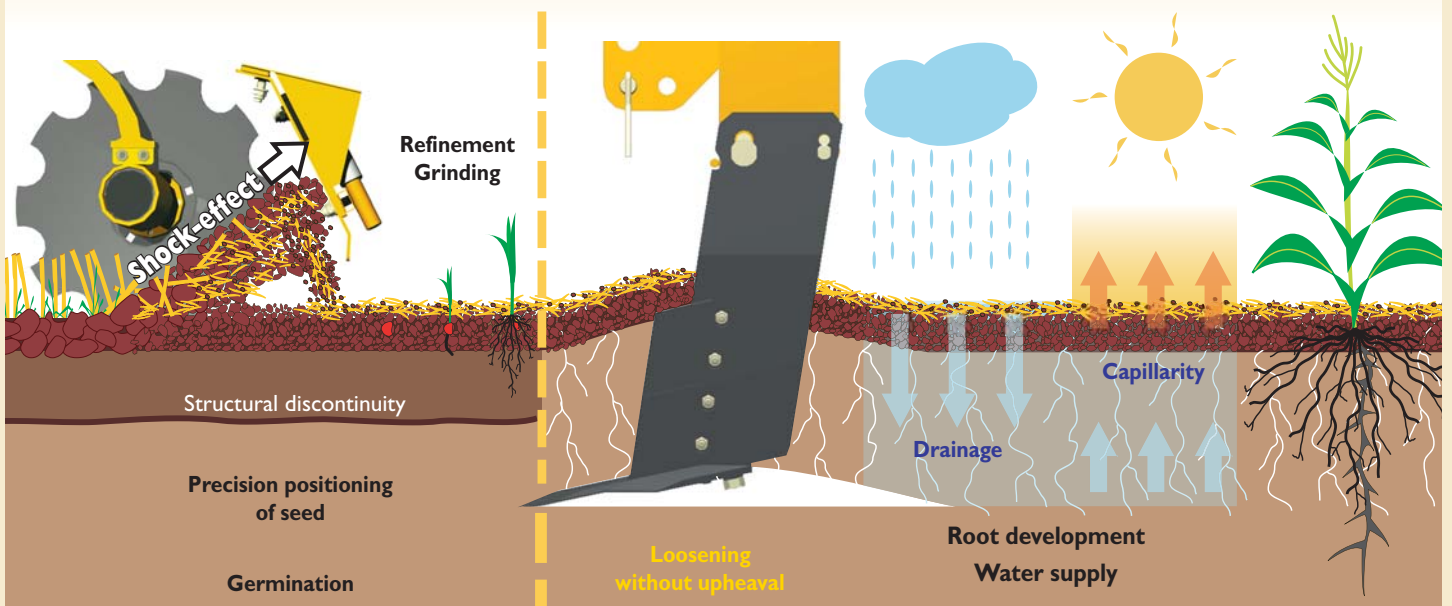


# AGRISEM®

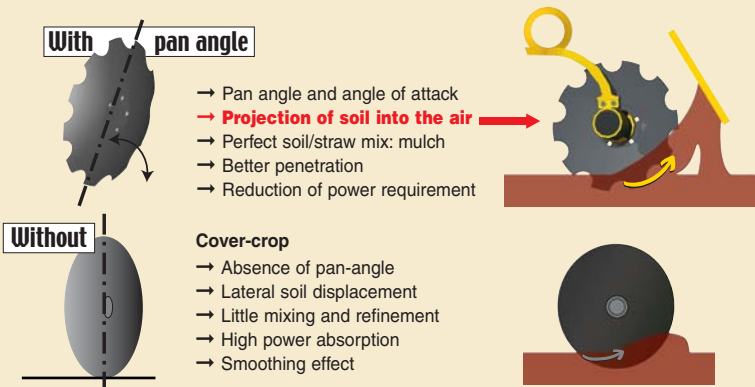
## INTERNATIONAL

### The disc and the blade

AGRISEM® International's equipment is developed on the basis of agronomical common sense (logic). We have created machines which favour the 2 crucial phases in the life of a seed: **germination and root development**. Indeed, the success of these 2 phases determines the potential yield of the crop, and AGRISEM® International's objective has always been to achieve high yields whilst reducing drilling costs, labour-time and the impact on the environment as much as possible. Germination and root development have different requirements and, above all, concern 2 completely different soil-horizons. Germination takes place in a refined seed-bed at a depth of about 5cm, whilst root development concerns a depth of over 30cm. Taking into account this simple fact, AGRISEM International® has developed 2 working systems which handle these 2 crucial periods in the life of a seed, independently: **the blade with its laterally retracted point and the pan-angle disc**.



### The independent pan-angle disc



**The objective of working the surface is to deal with crop residue and likewise favour "false-seeding"/ weed germination and there-after, that of the crop planted.**

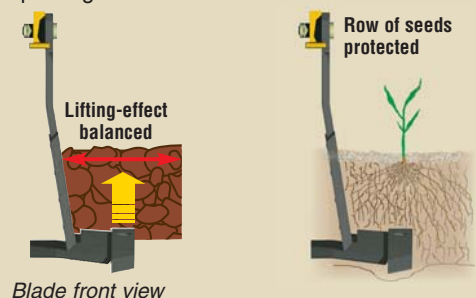
The disc has the advantage of being autonomous in generating its own working "force". The wear and tear is greatly reduced compared to a disc with teeth and it works without problem on land with large quantities of crop residue, without the risk of getting tangled-up. In 1998 AGRISEM International® invented the independent, retractable disc. This disc has an opening angle and most importantly a positive pan angle. In comparison to a traditional disc, the Disc-O-Mulch® lifts the soil into the air. Since it is combined with a clod-breaking apron the residue/soil mix is excellent, the refinement of the seed-bed is efficient and the soil surface remains smooth. Since the disc is a moving/rolling system, it is possible to work at high speed as long as an apron is positioned in order to regulate and avoid blocking the second tow of discs.

### The blade with its laterally retracted point

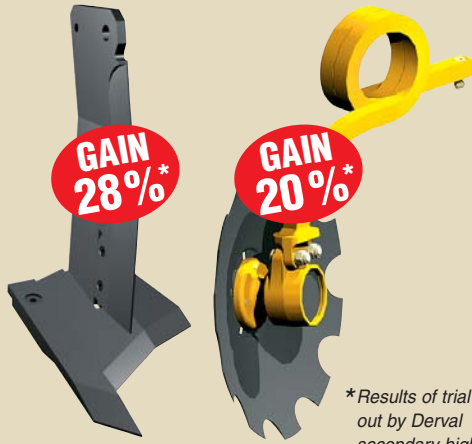


**To aid efficient root development, it is necessary to recover the soil porosity without upheaval, so as to avoid destructuration and dilution of organic matter.**

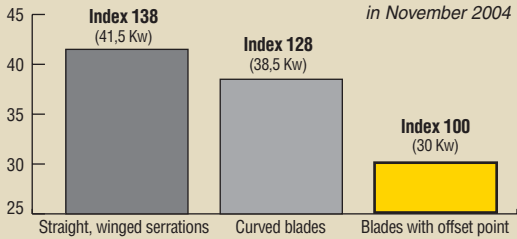
AGRISEM International's patented solution consists of folding-over the soil in a wave-effect. In order to create a wave, the retracted point of the blade exerts vertical pressure which ensures the homogenous lifting of the soil. The band of earth is then put back into place without being damaged, and this ensures a perfect structural continuity in order to provide efficient capillarity and help root-passage.



## Consume less fuel with AGRISEM



\*Results of trial carried out by Derval secondary high school in November 2004



Power consumption of a 3m soil-loosener working at a depth of 30cm

AGRISEM International®'s equipment allows you to substantially reduce your fuel costs. Our machines have a much lower power requirement than traditional systems. We have specifically researched the shape of the parts in contact with the soil in order to optimise power consumption. By reducing your fuel costs, you consolidate the health of your business and thus its longevity.

→ **On breaking-up your soil** with a Combiplow or a Multiplow you achieve an incomparable fissuration, unequalled today. You obtain a homogenous result using 50% less power in comparison to a traditional soil-loosener. This performance is the fruit of several years research and development. This work has resulted in the creation of a unique blade, protected by several international patents. With a retracted point, the lifting force is located just under the centre of gravity of the block of earth that you wish to loosen. The lining-up of force and counter-force optimizes the power requirement in order to lift the soil. Moreover, the blade leg is not completely straight, but inclined at 10°, so as to facilitate lifting and avoid deformities.

→ **When stubble-breaking** with a DOM or sowing with a DOS, you work very fast and have a power economy of about 25%. The discs are fixed to a 3D spring which protects the hub in whatever direction the shock comes from. By vibrating, the 3D security system generates an impact similar to that of the effect of a power-drill. Therefore, disc penetration, even in hard or dry soil, is made much easier. Moreover, a spring is particular in the fact that it recuperates more power than it actually contains. The quality of the work carried out is unequalled and a less powerful tractor is able to go faster.

# It's SIMPLE, ECONOMIC and PROFITABLE for farmers and the community

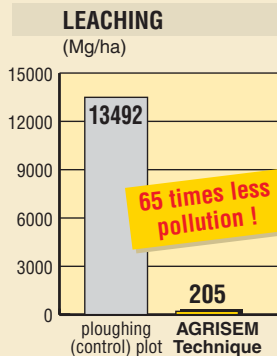
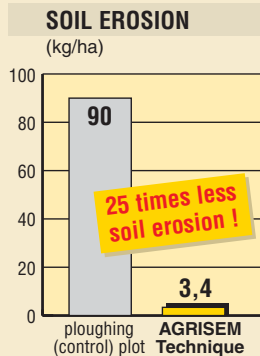
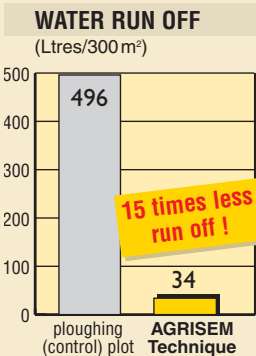
## The environment and water quality

Traditional soil-working techniques (based on ploughing) are responsible for water run-off. On destroying the soil and leaving it bare in winter, the soil structure often becomes unstable. Water has difficulty in penetrating at depth and runs off. In doing so, it takes soil and pesticides with it. The

AGRISEM International technique ensures gains in productivity for the farmer and the virtual suppression of run-off, erosion and pollution. An official, independent trial has spectacularly demonstrated this.

### Official experimental Kerguehennec trial

Financed by Brittany pure water, in partnership with Brittany chamber of agriculture, Rennes Inra-Ensa and ITCF Technical Institute for cereals and drilling.



Results measured after 26mm of rainfall. Comparison of different cultural techniques of maize cultivation on silty/sandy soil with a 6% slope including a control plot using traditional ploughing and a plot worked with an AGRISEM Combiplow®.

\* It is to be noted that in this trial pollution by run-off is once more halved (102mg/ha) in the presence of surface mulch when using the AGRISEM technique.

## A modular, evolutive technique



The transition from a traditional system to soil conservation techniques can be instantaneous with the investment in a great, big, miraculous machine!

At AGRISEM International we have chosen not to pressurize. We suggest technical modules which you can progressively integrate into your farming system. You choose the length of time it will take you to make the transition to soil conservation techniques. Investment is limited and spread out. Our equipment is simple and easy to use. It will allow you to reduce your mechanisation costs long-term.



# Disc-O-Sem®

Already adopted by numerous farmers and businessmen, the Disc-O-Sem® is a proven solution for reducing costs long-term whilst conserving plantations of an exceptional quality. The new political-economical environment must lead us to reconsider the tools employed for working the land and sowing. Thanks to a precision covering-over system, the Disc-O-Sem® has the capacity of sowing at high speed (between 8 and 20 km/h). Moreover, the Disc-O-Sem® is multipurpose and can be transformed into a simple stubble-breaker. Depending on your requirements: intense usage, the surface area being worked, you have the choice between 3 different working capacities (Super, Classic and Best). You can choose a mechanical or a pneumatic hopper with capacities ranging from 160 to 2000 litres. On choosing the Disc-O-Sem®, you are going to optimize your available equipment and greatly reduce your mechanisation costs. Sowing by covering-over will provide you with an exceptional germination rate.



**Today**

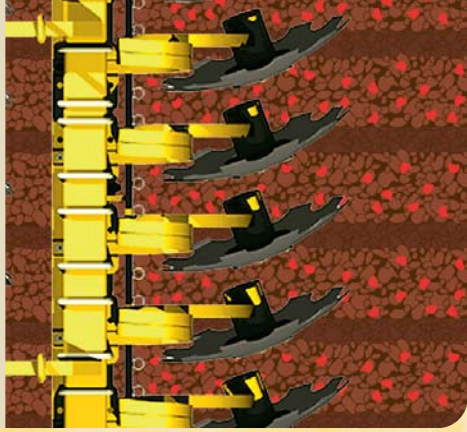
## Sowing by covering-over

### How does it work?



### Precision at high speed

Sowing by covering-over is the only technical solution if you want to be precise at high speed. Indeed, with a burying-implément that consists of discs or ploughshares it is inevitable that there will be some tamping down. Whereas, with no element in contact with the soil the earth thrown in to the air remains constant and will cover the seeds placed behind the first clod-breaking apron, regularly.

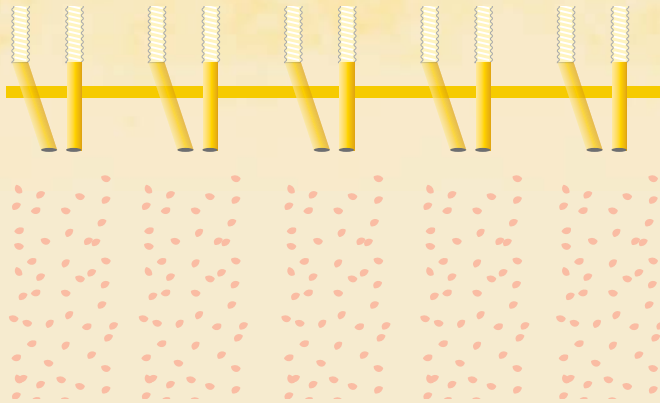


The sowing function of the Disc-O-Sem® is made possible by the pan angle of each disc. Instead of moving the soil sideways, as with traditional discs, the Disc-O-Sem® disc throws the soil into the air. Thus, covering-over is made possible. The seed is placed under the flow of earth produced by the 2<sup>nd</sup> row of discs. Firstly, the fine earth generated by the soil-breaking aprons covers the seeds then the larger clods remain on the surface and, in doing so, limit the risk of the seeds being washed-away. Contrary to certain sowing methods, the AGRISEM International® covering-over method does not drag the seeds under the soil and, thus, the sowing depth remains constant and homogenous.



## AGRISEM: Sowing by covering-over

The Disc-O-Sem® seeding board was specially designed to place the seeds between the 2 rows of discs, this patented seeding board positions the seeds behind the 2<sup>nd</sup> row of discs. It is attached at the rear of the clod-breaking apron. The flow of seeds is, therefore, in no way interfered with by the flow of earth regulated by the apron. The seed descent distribution is organised in pairs in order to localise your plantations in bands of about 20cm wide. Sowing in bands by covering-over ensures an efficient use of space. The plants have a greater growth potential and weeds have less space to develop in.



## At ease in all types of land ...

The pan angle of the Disc-O-Sem® permits the earth to be lifted up, thus, allowing sowing by covering over. Sowing by covering over with the Disc-O-Sem® can be adapted to all types of land. It is particularly efficient in the presence of plant waste and is equally talented at working the land. Its large clearance means that it can work without problem after harvesting maize. Likewise the Disc-O-Sem® is a high quality stubble-breaker. You can prepare your land and sow in all conditions with a Disc-O-Sem®. You reduce the machinery present on your farm, you optimise it and you reduce your costs long term.



Wheat "on" maize

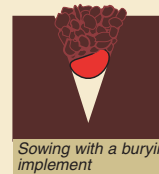


Oil-seed rape

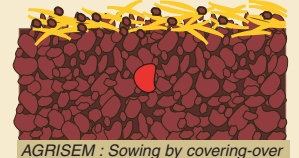


Wheat "on" wheat

## Incomparable germination rate



Sowing with a burying implement



AGRISEM : Sowing by covering-over

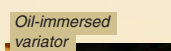
This technique of placing the seed without using a burying-implement permits an optimal soil/seed contact without the risk of smoothing-out the earth. The last Arvalis trials with barley, in spring 2004, showed that the yields obtained with this technique are superior to those of traditional methods.



## Disc-O-Sem® DS160

Seed drill specifically conceived for planting cover vegetation (mustard, etc)

## Disc-O-Sem® DS610



- Width 3m with 25 outlets
- 610 litre hopper
- Seeds carried by gravity
- Easy uncoupling of seed drill
- Distribution regulated by oil-immersed variator
- Distribution driven by retractable wheel frame
- Rigid lid that can be opened completely
- Rear step
- Weight of seed drill alone: 485 Kg





# Disc-O-Sem®

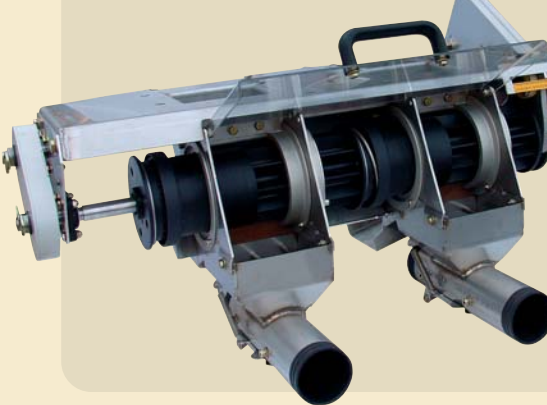
# Pneumatic



The majority of pneumatic seed drills are of a size suitable for working at speeds of between 4 and 9 km/h. This is the reason that they are not compatible with the high working speed obtained by the Disc-O-Sem.

AGRISEM International has thus decided to develop an "over-sized" seed drill in order to generate a greater rate of distribution.

## Large capacity distribution



Each hopper has its own distribution system, volumetric distribution. The dose is modulated by a sliding cylinder. This system is precise, reliable and very simple to put into practise. Regulation is controlled by a winch-handle and a scale indicates the position of the distribution cylinder. The distribution cylinder has 2 distinct areas: a fluted surface for large seeds and an area with spurs for smaller ones. This module is made of stainless steel in order to resist corrosion.



## Disc-O-Sem® DS 750/1000

The Disc-O-Sem 750/1000® is available in 3 versions (types of chassis): Super, Classic or Best (see page 9). Its reduced width allows you to place it on a foldable framework providing an overall width of under 2.55m in transport.



**2.5m**  
for models c and B



**Disc-O-Sem Best®**  
4m foldable



**Disc-O-Sem Super®**  
3m



**Disc-O-Sem Classic®**  
3m

## Technical characteristics

- 750 or 1,000 litre capacity
- 2 distribution heads
- Integrated gangway
- Hydraulic drive of the turbine
- Hopper made of high density polyethylene
- Weight when empty DS 750 : 320 kg  
DS 1000 : 335 kg



# Disc-O-Sem® DS1500/2000



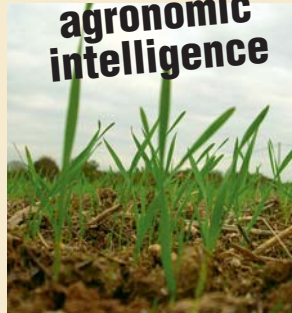
## Technical characteristics

- 1500 or 2,000 litre capacity
- 4 distribution heads
- Integrated gangway
- Hydraulic drive of the turbine
- Hopper made of high density polyethylene
- Carrying framework made of 160mm beams
- Tamping-down of soil by central 700 mm wheels
- Weight when empty DS 1500: 800 kg  
DS 2000: 830 kg

## Totally new agronomical prospects

The Disc-O-Sem® seeding unit has 2 outlets for each disc. These 2 outlets are fed by both hoppers. Therefore it is possible to place and mix 2 different elements in the seed bed. The Disc-O-Sem® can sow barley and incorporate nitrates in the same line that is being sown, clover and rye grass, different cover vegetation. You can also sow 2 similar plants, but of different varieties, for example 2 types of wheat. By sowing 2 varieties of wheat in the same plot your fungicide costs are reduced, fungal propagation is slowed down, health risks for flour production are much lower and problems due to climate change at flowering are equally diminished. For several years the national institute for agronomical research has demonstrated the interest of mixing different varieties of wheat or oil-seed rape. One of the barriers preventing the development of this technique is the technical limitation of mixing varieties. Mixing turned out to be tedious and once in the hopper the varieties could once again separate. With the AGRISEM International Disc-O-Sem® it is easy to mix different proportions and modulate the mixture as we wish. This possibility opens up totally new agronomical perspectives.

## Drill with agronomic intelligence



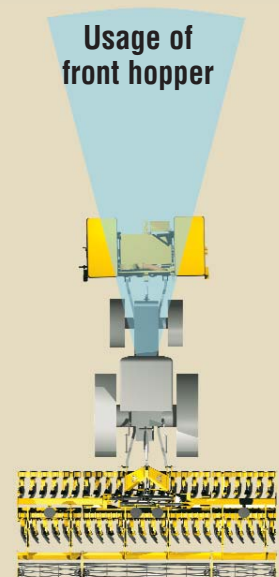
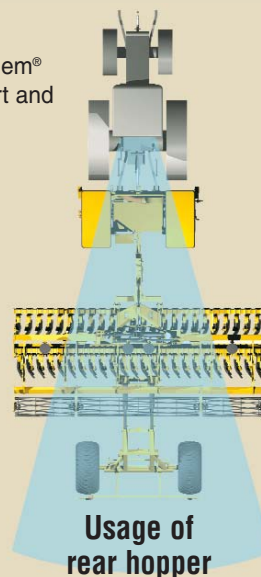
## Well-thought out and innovative concept

The Disc-O-Sem® with a double hopper has 4 central tyres to pack down the soil between the tractor wheels. The wheels also serve as preparation for the seed distribution. This system balances out the load between the tractor and the hopper. The framework is likewise used for pneumatic distribution. In fact, the turbine injects air into the framework which then feeds the distribution heads.



## Central visibility

By placing the hoppers on the same axis as the wheels, the Disc-O-Sem® frees your central field of vision, providing you with unequalled comfort and the possibility to verify the quality of your work as you go along.





# Disc-O-Mulch®

## THE LARGEST RANGE ON THE MARKET

From 0.75 to 12m

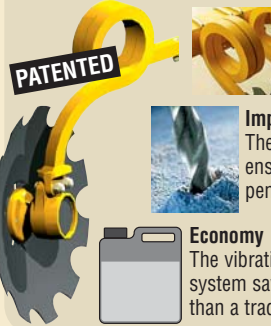


AGRISEM International, the inventor of the independent, retractable disc, today possesses functionally important advanced technology. The Disc-O-Mulch is the undisputed reference on the world market. The Disc-O-Mulch permits work at high speed with impeccable quality and levelling out. With 7 long years under its belt, AGRISEM International is the first manufacturer who can offer a reliable, long-lasting, productive solution.



### 3D security system

SEEN NOWHERE ELSE



PATENTED

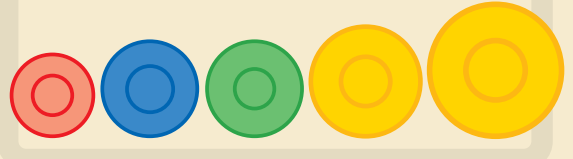
**Reliability**  
No pivot-point, no need for maintenance, incredibly simple.

**Impact**  
The vibration of the serrations ensures an exceptional capacity for penetration in dry conditions.

**Economy**  
The vibrating-effect of the 3D security system saves about 25% more energy than a traditional 2D system.

The hubs are bolted to the 3D security system. Watertightness is achieved by the advanced technology of sealed joints. The rotation has 2 rows of bearings in contact cross-wise. AGRISEM's uniqueness is that it has hubs that are of a much greater dimension than their competitors in order to offer you complete tranquillity of mind.

SEEN NOWHERE ELSE



SEEN NOWHERE ELSE

→ An intermediary removable part allows you to vary the inclination of the discs at the edge, in order to eliminate the formation of hollows and ridges.



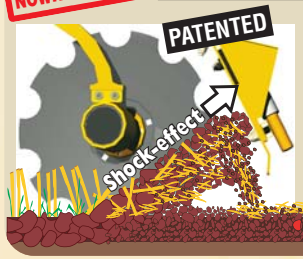
### Choice of discs

SEEN NOWHERE ELSE



SEEN NOWHERE ELSE

### The clod-breaking aprons



PATENTED

- Implement for regulating the flow of earth
- Refinement without power consumption
- Levelling-out by distribution of the flow of earth
- Breaking-up of fibres in crop residues
- Isolation of sowing unit
- Homogenous mixture

**Warning!**  
The clod-breaking apron must be full. If the implement that regulates the flow of earth is not full, it takes on the function of sieve, thus blocking straw and large clods of soil. The seed bed is therefore reversed and the seeds sown could find themselves in a lumpy, straw-filled environment.

### Roller bars dim Ø520



### Flexi-Pack® roller 3D Ø700



PATENTED



# How to choose your **Disc-O-Mulch®** ?

## Super



**Unbeatable performance**



Retail price index **100**



**Towed version optional**

**From 35 to 50 hp/metre**  
Maximum power: 320 hp for 6 m

**Folded 3m**

Weight 3m with roller cage

**1950 kg**

Fixed: 2.50m – 3m – 4m  
Foldable: 4m – 5m – 6m  
(Up to 12m: please consult us)

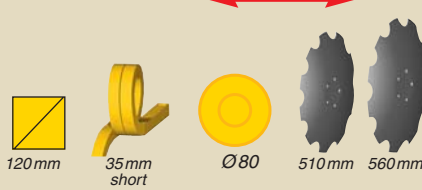
*Optional*

**Guarantee extended by 5 years**  
for the hub and the 3D security system

## Classic



**Top of the range versatility**



Retail price index **82**



**Lift-O-Sem® optional**  
(Rotating disc harrow)

**From 25 to 40 hp/metre**  
Maximum power: 240 hp for 6 m

**Folded 2.5m**

Weight 3m with roller cage

**1500 kg**

Fixed: 2,50m – 3m – 4m  
Foldable: 4m – 5m – 6m

*Optional*

**Guarantee extended by 5 years**  
for the hub and the 3D security system

## Best



**At the heart of the market**



Retail price index **60**



**Lift-O-Sem® optional**  
(Rotating disc harrow)

**From 20 to 35 hp/metre**  
Maximum power: 140 hp for 4 m

**Folded 2.5m**

Weight 3m with roller cage

**1200 kg**

Fixed: 2,50m – 3m – 4m  
Foldable: 4m

*Optional*

**Guarantee extended by 5 years**  
for the hub and the 3D security system





# THE LARGEST RANGE ON THE MARKET

# Combiplow®

Invented by AGRISEM International, the Combiplow is today's acknowledged reference and undisputed on the market. The uniqueness of the blades with their offset point and a framework which has been improved and is extremely compact, has permitted Combiplow to satisfy the most difficult of farmers and business-men! With more than 5000 soil-looseners in service, AGRISEM International now offers you one which has been adapted and optimized.

14



16



20 S



31



32 Eco



32 Super



36 Eco



36 S



38



46 S



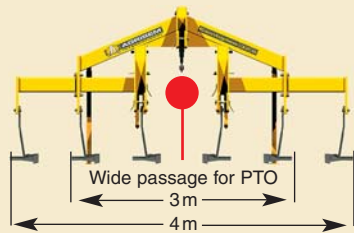
48



SEEN NOWHERE ELSE

4 blades for 3m    More clearance  
6 blades for 4m    Less wear and tear

### Bridged-framework



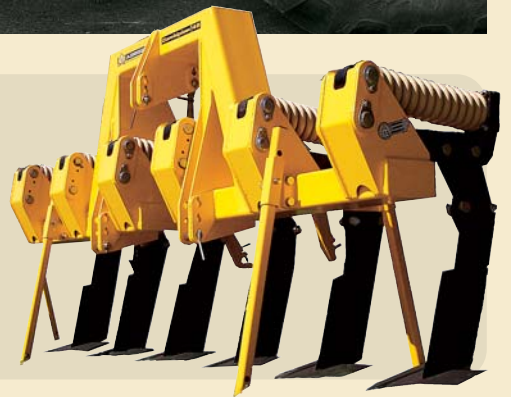
With the Combiplow 36® or 36S® it is possible to mount 6 blades on the 3m for soil that is not overly consistent.



### New mechanical non-stop security system for the Combiplow®



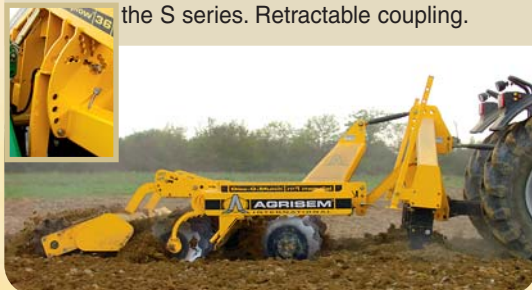
The non-stop security system is generated by an enormous spring. The reaction is immediate and with its large clearance, productivity is maximum. You will never again have the problem of oil-leaks!



- Can be used with the sowing equipment already present on your farm
- Your investment is smaller than if you bought a complete set of direct-sowing equipment
- It's possible to use the sowing combination without the Combiplow®: it takes less than 5 minutes to uncouple (attached by 3 point fast coupling system cat No. 2 and 3)
- The Combiplow® can work alone by adapting its rear roller bar.

### Precise and simple regulation of rear coupling

Invented by AGRISEM, the 2 multi-stop boxes of the Combiplow® are defined by a high stop and a low stop. The 3<sup>rd</sup> point can be regulated in length on the S series. Retractable coupling.



### The best compactness you'll find on the market

SEEN NOWHERE ELSE

Use the traditional sowing combination present on the farm

=

Versatility  
Reduced investment  
Safe-guard for your crops



Compact for transport



High clearance at work



About 35 cm (14")

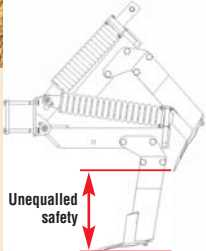
RECORD



# Cultiplow®

**THE  
LARGEST  
RANGE  
ON THE  
MARKET**

The Cultiplow® is used by itself. This soil-loosener is recognised by all the agronomists on the planet as the agro-economic solution. The blades with their offset point move a homogenous wave of soil and save about 40% of energy in comparison to straight or curved blades.



Its large dimension allows it to work in the most difficult of conditions. The kinetic blade-support allows complete clearance of the blade: it rises on meeting obstacles.



## Loosen the soil without destroying your plant cover

### Pasture Cultiplow®

The only blade in the world which can loosen the soil without disturbing the soil structure



The AGRISEM blade doesn't destroy the plant cover and allows you to loosen the soil in areas covered with grass.



### Cultigreen®

An opening-disc and a roller equipped with tyres permits you to leave the plant cover intact, such as the Cultigreen® for sports fields.

## Agromulch®



### Superficial loosening


Equipped with small blades, the Agromulch® fissures the surface. You loosen at a depth of 10 to 20cm without upheaval nor mixing of the different soil horizons. The patented shape of these blades ensures vertical lifting in order to dislodge a wave of soil. Power absorption is limited.

## Combimulch®

### Surface preparation combination



The Combimulch® is the logical agronomical complement to the Cultiplow® or Combipow®. A roller controls the loosening depth with precision, and a row of 3D discs ensure the mixing at the surface in order to achieve 2 functions in only 1 passage.

-  12
-  15
-  24
-  27
-  42
-  51
-  51 P
-  51 +
-  52
-  52 P
-  54
-  58



AGRISEM International<sup>®</sup> is also the world specialist in tool-carriers. The towed framework permits the combination of a soil-loosener, a Disc-O-Mulch<sup>®</sup> and, when necessary, a seed drill. With these combinations you maximise large capacity power and develop a very impressive productivity. With Agrisem's long experience in this field, you are choosing the equipment designed to work in the most difficult of conditions. The Cultifield<sup>®</sup> can work in 3 and 4m mode whilst the Maxiplot<sup>®</sup> can take on tools of 6m

**Plough TCS<sup>®</sup>**



**Cultifield<sup>®</sup>**



**Maxiplot<sup>®</sup>**

**The AGRISEM<sup>®</sup> Technique is SIMPLE,  
ECONOMIC and PROFITABLE  
for farmers and the community**

*...The only risk is improvement*



*A dynamic team*



*Present at national and international trade-fairs*



*AGRISEM International has its feet on the ground!*

**n.1 worldwide**  
Expert in soil conservation techniques

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