

# GASPARDO

# URAGANO



## SELF-PROPELLED SPRAYER

*Arch frame design arch and hydraulic adjustable track width*




# URAGANO

## 360° DEGREE PROTECTION

Uragano is a self-propelled sprayer specifically developed to work on tall crops (2.00 m and more). The original arch design of the frame allows the driver to overcome taller plants (maize, sorghum, sugarcane, tobacco, etc...) with no damage at all. Compact design and a very advanced hydraulic circuit make the machine reliable, handy and safe on field and during spraying set up.



Visit our Youtube page 



Remarkable flexibility of the machine with adjustable track width, many sizes of wheels, lifting driving cab and boom make Uragano well-suited for spraying on any crop and in any conditions: maximizing the return of investment in machinery.



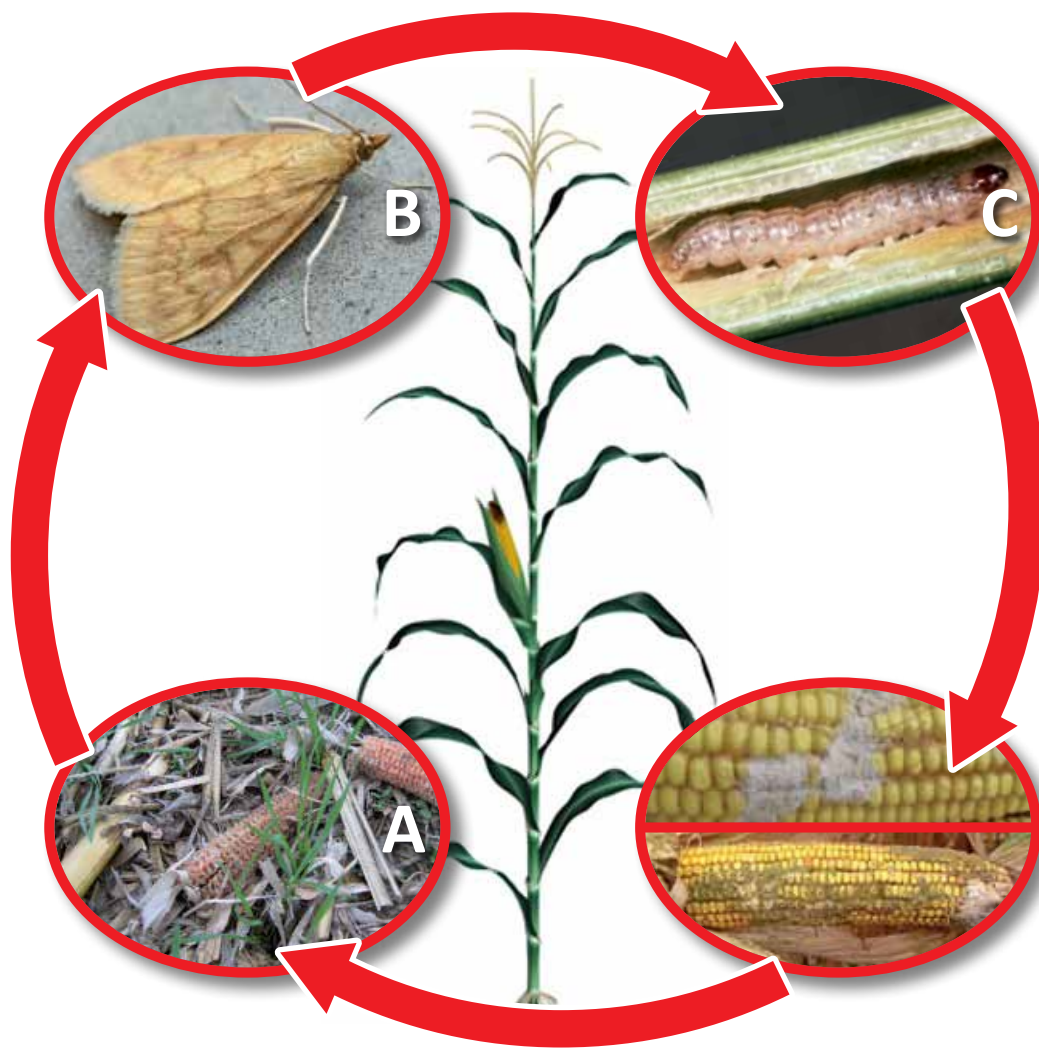
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# URAGANO

## PYRALID ATTACK AND MICOTOXYN PROBLEM



Pyralid larvae winter in crop residues and start to attack young maize; when it is close to maize flowering, first generation adults deposit eggs on plants. Second generation larvae enter from leaves pit and bore galleries in stalk and ear: the stem collapses, the ear falls and operations at harvest are more difficult, high yield loss can occur.

Moreover, secondary fungal diseases introduce dangerous byproducts in maize seed: micotoxins, which are harmful for human health. If the concentration is over the legal limits, product is not suitable for food/feed use, and its value is strongly reduced.

Spraying insecticides at the right moment can prevent or reduce contamination, saving crop yield and profitability. Urugano allows one to get a very uniform distribution of product for excellent protection of crops; no plants are crushed during spraying operations: there are no weak/damaged plants that can spread infection during the subsequent crop stages.



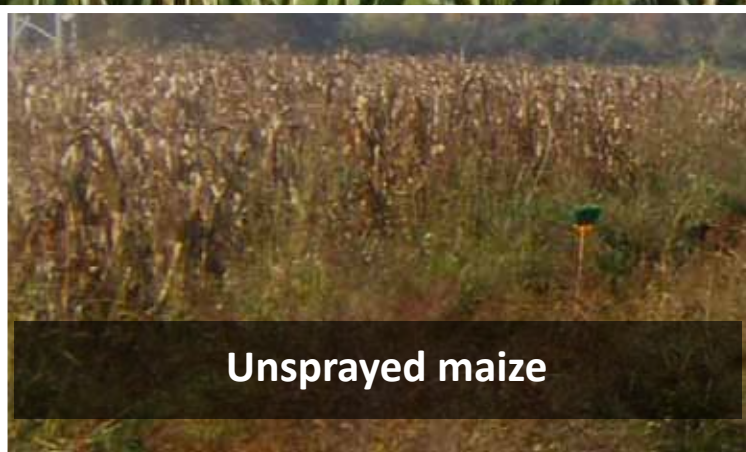
Farm contractor and owner of a cereal drying and storage plant that works per annum 30,000 tons of oil seeds and cereals: the main share is maize (25,000 t).



I sell my cereals to the food processing industry: they insist on the quality and reasonableness of products as new guidelines call for checking batch by batch for contaminants. I asked farmers to apply crop protection against pyralid, diabrotica and mites on the maize they deliver me: we all profit!

The market appreciates the quality and purity of my grains: we save transport costs as food processors, seeking quality, are ready to pick up the product directly at my storage area. In this way I can get a better price and pay the farmers back more. Treatment cost is totally recovered by increased yields (+10/15%) and better marketable value. Thanks to treatments that I apply with Uragano I have only sound grains and people waiting to buy my maize!

*Giovanni Rossi,  
Inveruno (MI)*



**Unsprayed maize**



**Sprayed maize**



# URAGANO

## BORN TO BE FLEXIBLE!

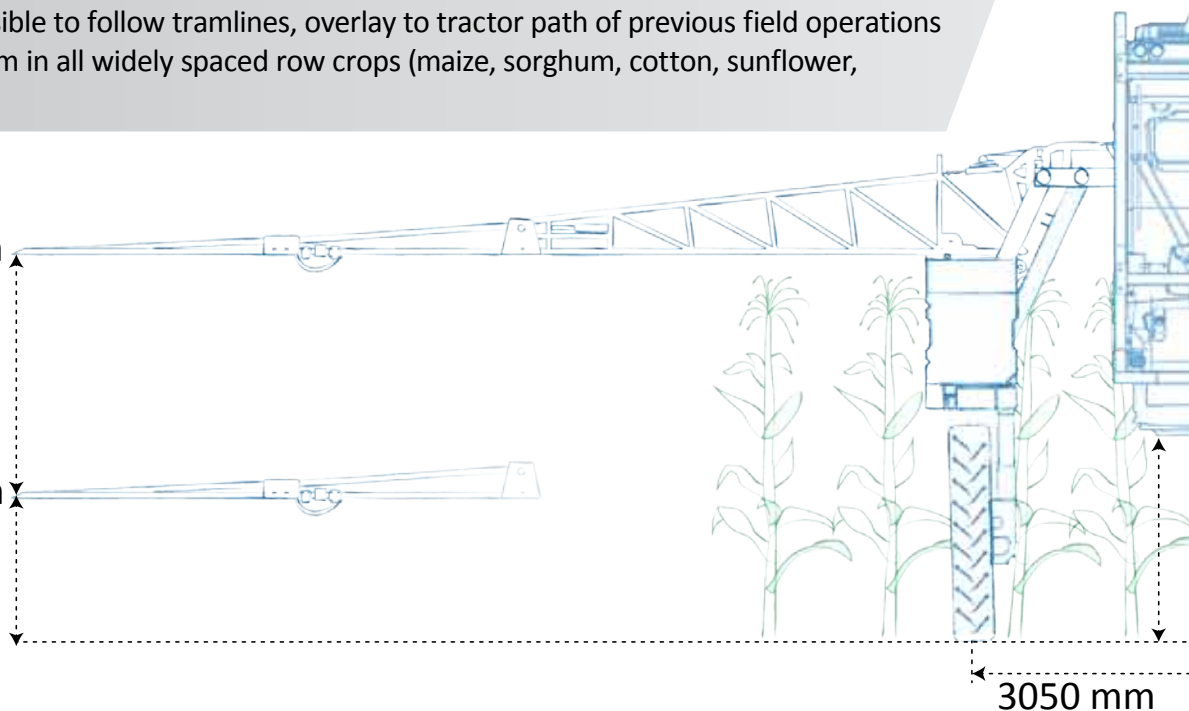
Uragano has an outstanding flexibility to spray in any situation

### TRACK WIDTH

Can be adjusted in a few seconds by hydraulic distributor in a continuous range from 1,70 m to 3,05 m. In this way, it is possible to follow tramlines, overlay to tractor path of previous field operations or enter with no problem in all widely spaced row crops (maize, sorghum, cotton, sunflower, tobacco...).

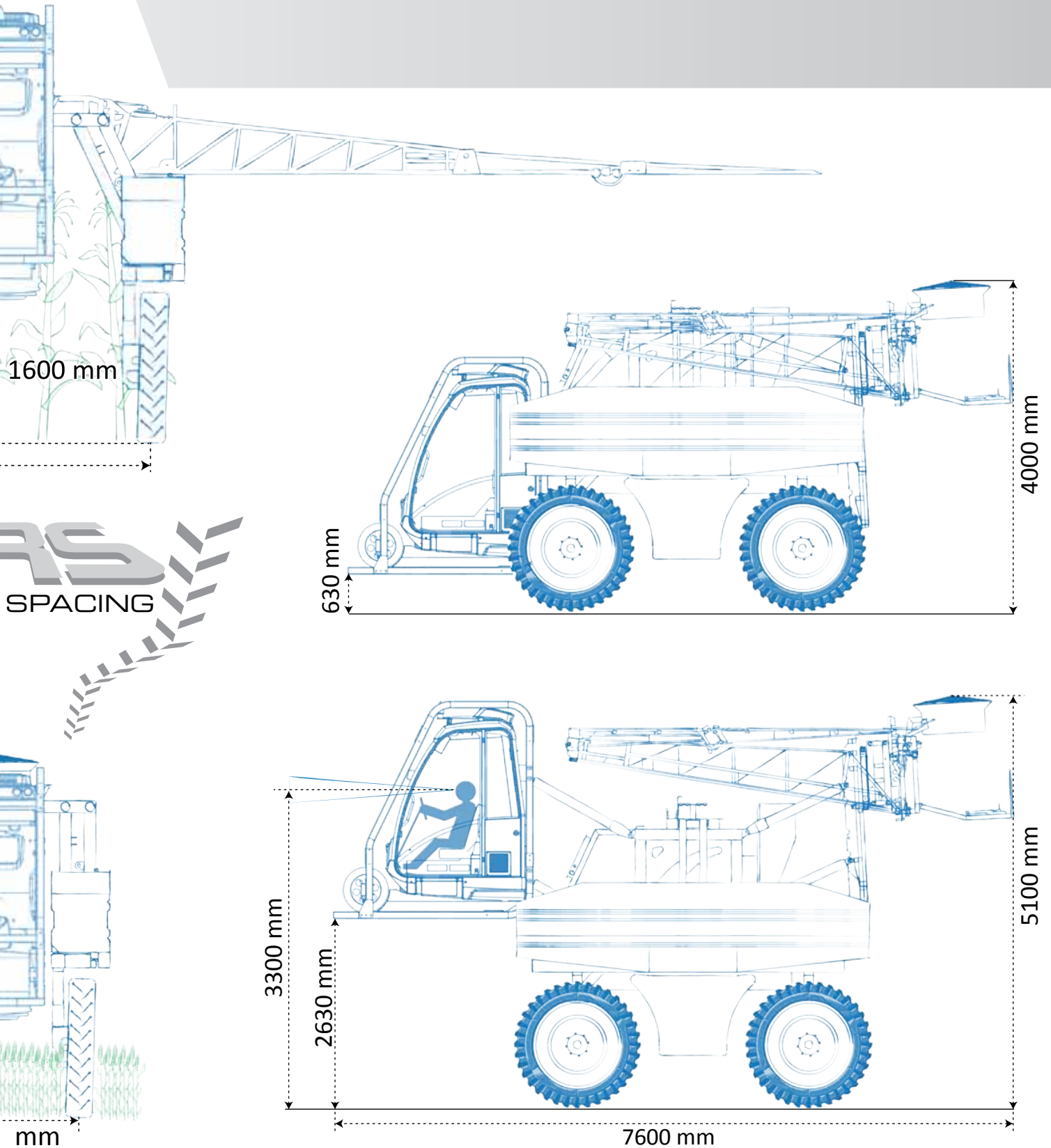
MAX 3900 mm

MIN 1080 mm



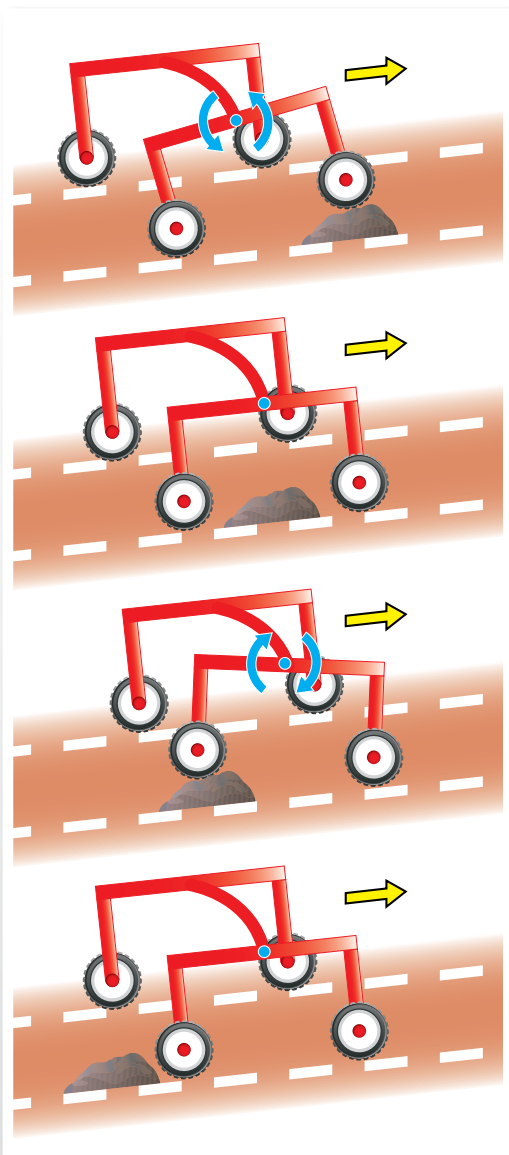
## CAB LIFTING

A parallelogram system can lift the cab and the driver's point of view as high as 3,30 m, to have always full control also spraying in tallest crops.



# URAGANO

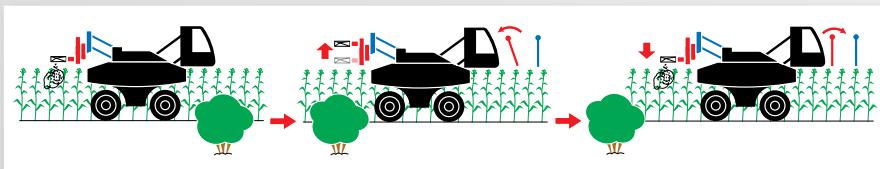
## STABILITY IN FIELD



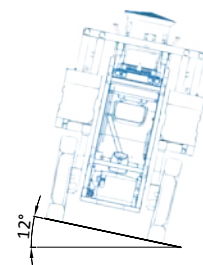
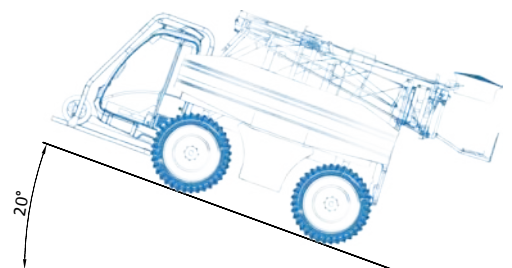
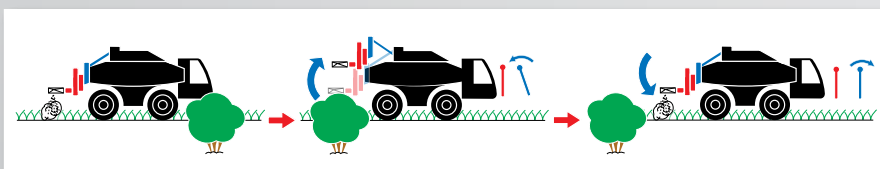
The machine has a simple but very effective hydro-pneumatic dampening system with a hinge between the two side bodies of the frame. In this way, Uragano is excellent at following any soil profile for improved boom stability and operator's comfort.



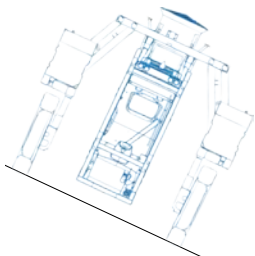
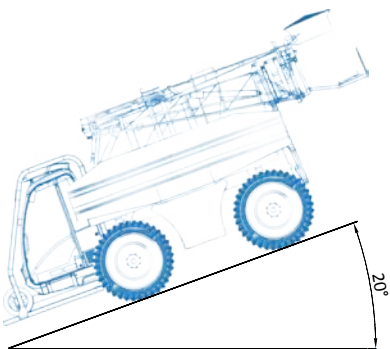
### DOUBLE LIFTING SYSTEM



Boom height can be managed by a double lifter (parallelogram + vertical lift) to take boom from 1,08 m (spray on bare soil) up to 3,90 m. This configuration makes it much easier to maintain constant spraying height when maneuvering to get by an obstacle.







Because of low center of mass, the two side tanks guarantee optimal stability also with moderate slopes, compared to conventional self-propelled with central top tank. Common suction circuit always maintains similar weight in the two containers during work, reducing unbalancing. Upon operator choice, it is possible to manually exclude one of the two tanks, to maintain balance in particular conditions. At the widest track width (3,050 mm), the machine can bear a side slope of 25°.



# URAGANO

## URAGANO, A TURNING POINT IN STEERING!

Maneuverability is a very important aspect for this kind of machine. URAGANO has 4 different steering modes: front electronic or hydraulic steering for road transportation; all-wheel for the sharpest steering radius at headlands (1,5 m); "crab" to align machine to row crops in just one step!





## CAB LIFTING

A parallelogram lifts the cab and takes brings the driver's point of view up to 3.30 m, allowing better visibility in manoeuvring.

2 speed hydrostatic transmission + reverse allow Uragano to have maximum transfer speed of 40 km/h; in working speed configuration it's up to 20. Low regime engine to run the machine on the road reduces fuel consumption and makes the driver's work more comfortable driver's work.

## ELECTRONIC MANAGEMENT OF STEERING

Hydraulic distributor works independently only on the "leader" wheel (front-right): a sensor on it manages oil distribution to the other 3 wheels to always have always perfect synchronization of all and immediate responses to any command!



# URAGANO

## EASIER SPRAYING, HEALTHIER CROPS!

### PUMPS

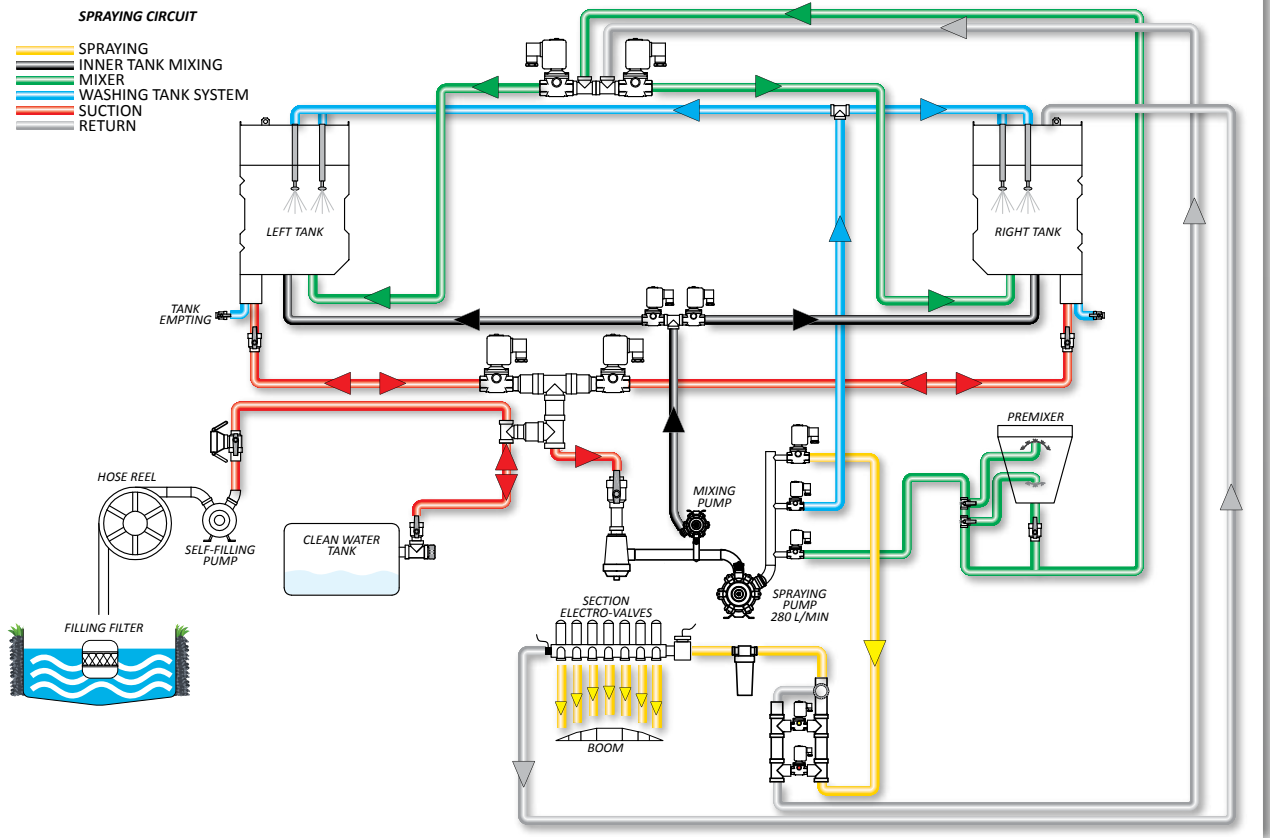
Machine is equipped with 3 pumps: one for tanks filling, one for spraying and one dedicated to continuous mixing of product in tanks. Under central body, a reserve of 350 litres of clean water is kept for rinsing the spraying circuit and the 2 side tanks (4 rotating spinning nozzles per tank). For treatment with liquid fertilizer, a special stainless steel spraying pump is available.



### SPRAYING CIRCUIT

A 6 membrane 280 l/min pump works for spraying, pre-mixer and circuit/tank rinsing. The system has 5 or 7 sections that can be closed from cab with electro-valves: by the driver from switches or automatically with GPS section management. A flow-meter varies in real time the spraying flow to the boom, adapting it to working speed of machine and always keeping a constant spraying rate set up on the monitor.





## PRE-MIXER 30 I

The premixer is on right side of the machine, a parallelogram can bring it to a comfortable low position for the operator. This solution allows an easy, safe and clean preparation of the treatment: contact with chemicals is minimal, and no waste of product occurs with the bottle cleaning nozzle.



# URAGANO

## ALL YOUR HANDS

### MULTIFUNCTION JOYSTICK

The boom movements are completely controlled by electro-hydraulic valves. Operator can manage with a joystick all these and many other functions:



- parallelogram and vertical lifting of boom
- cab lifting
- boom opening/closing
- independent geometry
- stabilizer lock
- boom angle correction
- track width



Boom is available in 4 different widths from **18** to **28**, in measure up to **24** m last section of boom closes upwards to easily overcome vertical obstacles like poles or trees. 3 rubber air bags on boom connection to the frame guarantees shock absorption of boom also in most uneven soil. Independent geometry is a standard feature to adapt to all soil profile especially in hilly lands or wavy soils.





## Nozzles

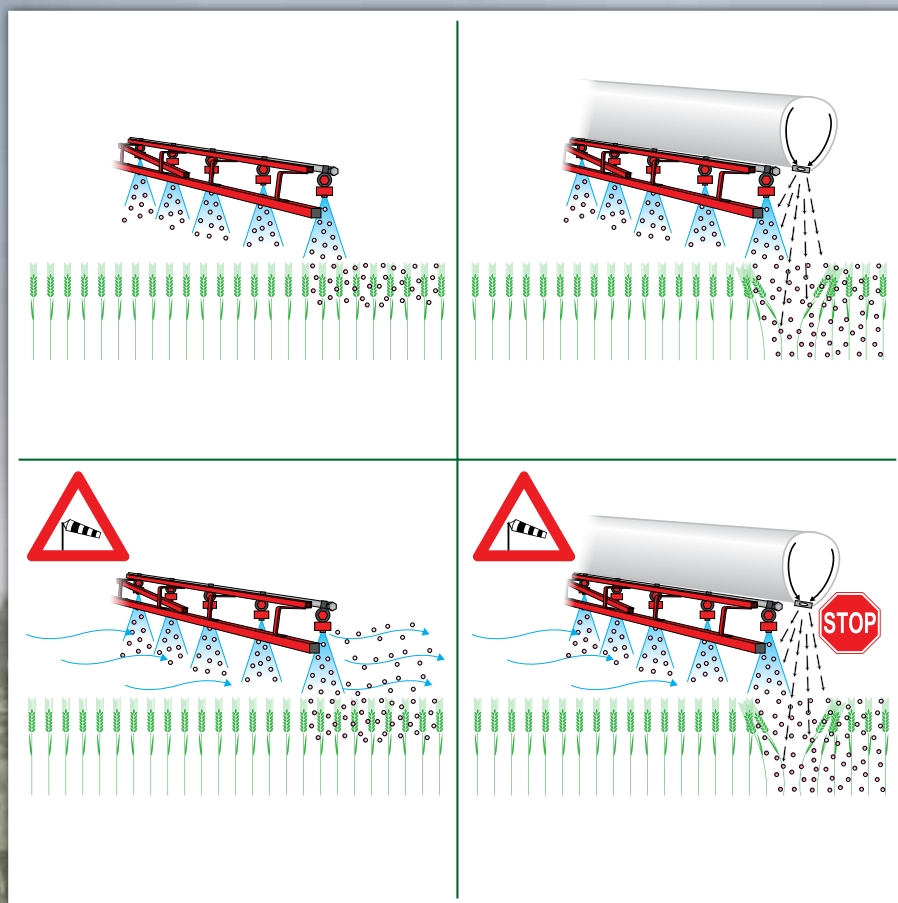
Tri-jet ceramic nozzles guarantees very quick spray rate shifts, other kind of nozzles are available upon request.





# URAGANO

## THE WIND OF CHANGE!



Upon request, the machine can be equipped with a special air flow sleeve to reduce wind drift of chemicals and improve penetration efficiency of treatment into vegetation. Wind speed of the fan can be adjusted with a potentiometer on console, to cope with all wind speeds up to 8 m/s. The system has an independent oil gear pump connected directly to the main engine shaft: this ensures there is always a constant power supply to this important device, absorbing just 20 HP.





Special elliptic border of the sleeve holes reduces turbulence of air as compared to standard circle holes, sprayed chemicals are driven correctly to the soil. Angle of exit of air flow bends plants and allows the products to also reach lower leaves of the plant, improving covering ratio and efficiency of treatment.



# URAGANO

## CLEVER, SMART... GENIUS WAVE!

Uragano is fully electronically managed: driver can access all main functions from his seat!

### **GENIUS WAVE**

Spray computer GENIUS WAVE easily controls distribution rate acting directly on electro-valves in control unit, many work programs can be saved and recalled by the user, for quicker work setup. Boom sections are manually controlled by switches or can be managed from the GPS system to close section in irregular shaped fields.

### **FILLING MONITOR**

is integrated with the console, tanks can be filled completely or to programmed level with automatic stop of the pump. 4 electronic load cells per each tank constantly check water levels in container, with no risk of false measurements when machine is running on slope. Tanks are connected to the same suction circuit to have uniform emptying of right and left side; in any case, the system allows user to exclude manually one or the other tank.

### **GPS DRIVE**

The GPS DRIVE improves spraying efficiency as it helps the operator to avoid any overlapping or not sprayed areas, can close sections of boom when field edge is tracked on memory and reduces stress from driving as it helps to select correct rows to enter in headlands. Work can be saved on flash memory, with the possibility to backup suspended sessions and start them again.







# URAGANO

## WELCOME ON BOARD!

The driving cab has been studied to offer maximum comfort and safety to the user: a roll bar cage around all the cab protects the driver in any conditions. Seat and steering wheel are adjustable to always get the best position; activated carbon filter, stereo system and air conditioning are standard features.





All the commands are placed on the top, to offer panoramic view and full control to the driver. Access to filters for air cleaning is in easy position for maintenance to be performed on them. The rear hinged door makes access to the machine much easier; wide side windows gives more visibility to boom ends, especially when working on mid or top cab lifting.





# URAGANO

## THE POWER OF A STORM!

Uragano is powered by a strong and reliable 6068T John Deere 6- cylinders engine: total available power is 170 HP (127 kW) to run all the services and the hydrostatic traction. 150 liters diesel tank ensures a long operating range.



The main shaft of the engine runs the 4 hydrostatic motors on wheels: the system is equipped with 2 oil gear pumps for front and rear traction and an oleo-dynamic differential to escape from critical situation of low grip to soil. A third additional in-line gear pump activates the boom air flow fan if it's installed on machine.



Power take off shaft runs 3 different in-line pumps, for steering, spraying pumps and other services (lifting, boom opening, track width...). A radiator cools down all the oil of the system: special "soft-start" and "reverse spin cycling" of the fan guarantees to have always radiator clean and preventing in harder conditions deposits of maize pollen or dust on it.





# URAGANO

## TECHNICAL SPECIFICATIONS

The machine is available in two versions: SL and LX. The second one offers the traction hydraulic differential, the electronic weighing system for real time tank level also while the machine is tilted and a wide range of fittings for electronic accessories.



MACHINE			
	URAGANO 2000	URAGANO 3000	URAGANO 4000
Motore, cilindri (n)	JD4045 HF275, 4 in line	JD6068 HF 285, 6 in line	JD6068 HF 285, 6 in line
Engine power HP (kW)	140 (103)	170 (127)	170 (127)
Fuel tank	150 l	225 l	225 l
Traction	4 hydrostatic Poclain MS11	4 hydrostatic Poclain MS11	4 hydrostatic Poclain MS11
Speeds	2 + RM	2 + RM	2 + RM
Max working speed	18 km/h	20 km/h	20 km/h
Max transport speed	36 km/h	40 km/h	40 km/h
Hydraulic differential	SL - / LX ●	SL - / LX ●	SL - / LX ●
Parking brakes	Hydr. on rear wheels	Hydr. on rear wheels	Hydr. on rear wheels
Gear pump for steering	33 l/min	33 l/min	33 l/min
Gear pump for spraying pumps	22 l/min	22 l/min	22 l/min
Gear pump for all services	11 l/min	11 l/min	11 l/min
Minimum boom height	1060 mm	1060 mm	1060 mm
Maximum boom height	3900 mm	3900 mm	3900 mm
Minimum track width	1700 mm	1700 mm	1700 mm
Maximum track width	3050 mm	3050 mm	3050 mm
Length (total)	7600 mm	7600 mm	7600 mm
Width (transport mode)	<2550 mm	<2550 mm	<2550 mm
Height (transport mode)	4000 mm	4000 mm	4000 mm
Weight (empty)	7000 kg*	8000 kg*	8200 kg*
540/65 R24 wheels	o	o	o
420/70 R30 wheels	-	o	o
320/90 R32 wheels	-	o	o
270/95 R36 wheels	-	●	●
300/85 R42 wheels	o	o	o

\*The weight is intended for machine featured equipped with 21 m boom and air sleeve; weight can vary depending on optional options installed and boom model.

- Not available    o Available on demand    ● Standard features



SPRAYING			
	URAGANO 2000	URAGANO 3000	URAGANO 4000
Main tanks capacity	2200 liters (1100+1100)	3000 liters (1500+1500)	4000 liters (2000+2000)
Clear water tank capacity	200 litri	350 liters	350 liters
Pre-mixer	30 litri	30 liters	30 liters
Hand washing tanks	15 litri	15 liters	15 liters
Tank filling pump	300 l/min, centrifuga	500 l/min, centrifuge	500 l/min cetrifuge
Spraying pump	280 l/min, 6 membrane	280 l/min, 6 membranes	280 l/min, 6 membranes
Stainless steel spraying pump	opt	opt	opt
Filling hose	10 m, Ø 50 mm	10 m, Ø 50 mm	10 m, Ø 50 mm
Agitator pump	70 l/min, 2 membrane	70 l/min, 2 membranes	70 l/min, 2 membranes
Boom length	18-21-24 m	18-21-24-28 m	18-21-24-28 m
Closing of last boom section	Verso l'alto	Upwards 18 21-24	Upwards 18 21-24
	-	Sideward 28 m	Sideward 28 m
Nozzles	Tri-jet 2 per metro	Tri-jet 2 per meter	Tri-jet 2 per meter
Boom sections	5 o 7	5 or 7	5 or 7
Air speed of fan sleeve (OPT)	Da 0 a 115 km/h	0 to 115 km/h	0 to 115 km/h

- Not available    o Available on demand    ● Standard features

ELECTRONICS AND DRIVING CAB			
	URAGANO 2000	URAGANO 3000	URAGANO 4000
Spraying computer	●	●	●
Tank filling computer	●	●	●
Steering selector	●	●	●
Load cell for level check	SL - / LX ●	SL - / LX ●	SL - / LX ●
GPS computer	o	o	o
Rear maneuver camera	o	o	o
Self-guidance kit	o	o	o
Air conditioning	●	●	●
Stereo system	●	●	●
Activated carbon air filter	●	●	●
Adjustable driving seat	●	●	●
Adjustable steering wheel	●	●	●

- Not available    o Available on demand    ● Standard features





# URAGANO



**MAIZE**



**SOYABEAN**







*SUGARCANE*



*TOBACCO*



*SUNFLOWER*



*OILSEED RAPE*



*WHEAT*



*SORGHUM*





# GASPARDO



## **MASCHIO** **GASPARDO** **the winning team**

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SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =**

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DEALER: