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GOËMAR

A clear leader in sustainable technologies for agriculture

Main activity
Development and marketing of sustainable solutions, respectful to Mankind and his environment, for an improved and modern agriculture.



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GOËMAR

The sea, the origin of a success story

1974: Establishment of the Goëmar laboratory in Saint-Malo – Brittany

Brittany: A field of 800 varieties of seaweed and the strongest tides in the world.

Goëmar: Development and marketing of seaweed-based products destined to plant health; Trading opportunities for foliar stimulants.

1987: New approach to value natural sea water in human health

Activity diversification due to the launching of a seawater-based product range destined to human health: Marketing of *PHYSIOMER* in 1988.

2002: Approval of the 1st plant vaccine

Invention of the plant vaccination, with a 1st vaccine registered for cereals the same year, containing a natural compound resulting from Laminar seaweed.

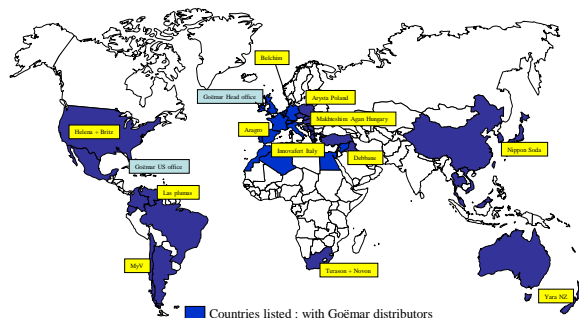
2008: Reinforcement of the expertise in Plant Health

Sale of the Human Health department (Laboratoire de la Mer) (to the holding CH-Pharma held by the Investment fund TCR Industrial Partner, in September 2009).
Goëmar is now concentrating on its agricultural activity so as to reinforce the development of solutions respectful to Mankind and his environment.



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Presence GOËMAR in 2009



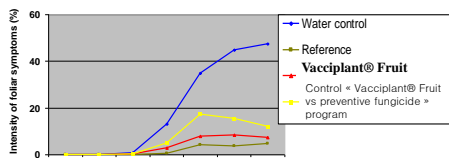
GOËMAR
LE LABORATOIRE DE LA MER

GOËMAR **Vacciplant®**
LE LABORATOIRE DE LA MER

3. Vacciplant® Fruit management within an anti powdery mildew program

EVALUATION ON LEAVES

Average 3 trials (CATE, PROMOVERT 2006, SAA 2007)
Vacciplant F. efficacy on young leaves



In the Vacciplant® Fruit program, the 2 thirds of the fungicide applications have been replaced by Vacciplant® Fruit, with a protection efficacy equivalent to the reference « all fungicide ».

La nature qui stimule la nature.

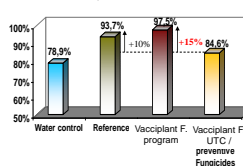


GOËMAR **Vacciplant®**
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3. Vacciplant® Fruit management within an anti powdery mildew program

EVALUATION ON FRUITS

Average 2 trials (HORTIS et PHITEX)
Proportion of marketable fruits



Benefits of Vacciplant® Fruit as a program :

- > **Trial Hortis :** Vacciplant® Fruit enabled to replace 5 fungicides applications out of 8
- > **Essai Phitex :** Vacciplant® Fruit enabled to replace 4 fungicides applications out of 6
- > **On both trials :** Vacciplant® Fruit enabled to obtain 15 % of extra marketable fruits. Under the same conditions, preventive fungicides enabled to obtain only 10 % extra.

The proportion of marketable fruits obtained with the Vacciplant® Fruit program is higher than the one obtained by the reference program.

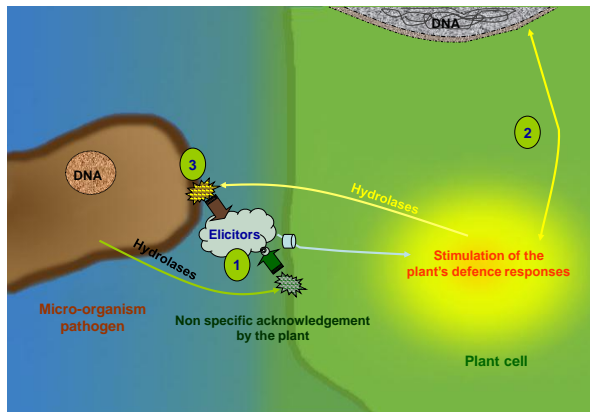
La nature qui stimule la nature.



Plants have developed defence systems to resist against their aggressors' attacks.

- 1 Acknowledgement = Elicitors from the degradation of the plant walls or of the pathogen
- 2 The plant sets up its own defences:
 - Reinforcement of the cellular walls
 - Production of the active components on the aggressor
- 3 The aggressor suffers the consequences of its attack

La nature qui stimule la nature.

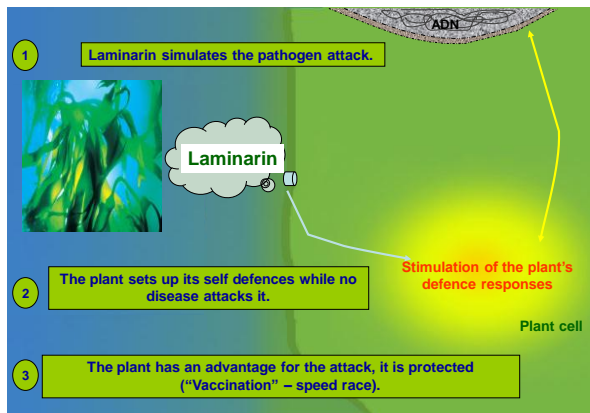


Laminarin : mode of action

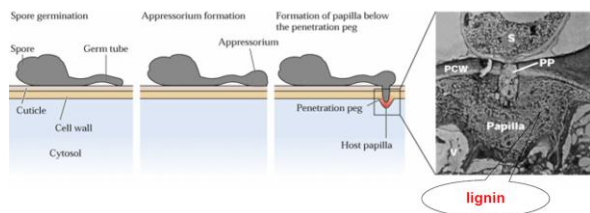
Reserve oligosaccharide of seaweed, Laminarin looks just like fungi wall degradation products:

It's an elicitor.

La nature qui stimule la nature.



Cell wall strengthening



Plant defence mechanisms are universal

All species have the ability to settle non specific plant defence mechanisms.



These plant defence mechanisms are efficient against a wide range of various pathogens.



La nature qui stimule la nature.

Systemic protection.

- ✓ Laminarine induced protection is systemic. **New formed organs** are equally protected.

Regulatory status.

- ✓ Laminarine is **Annexe I** listed - directive 91/414/CE (22/01/05).
- ✓ **Some registration** according directive 91/414/CE in France, Belgium, Greece + Switzerland and Morocco outside Europe
- ✓ **No Tox or Ecotox classification**

Preventive.

- ✓ Laminarine has **preventive action** and therefore must be applied before the plant is attacked by the targeted pathogen.
- ✓ **3 days** after Laminarine application, plant defence are established.

La nature qui stimule la nature.