

1. Optimize the quality

2. Measure the condition

3. Monitoring the quality

4. Identify the product

# Smart Technologies

Integrating Technologies  
as a key to a smarter  
and more efficient use of  
Ag Inputs

**Hoopman**



Group

# The Challenge



- Food security is the major challenge for the future.
- Food security becomes an even bigger challenge since customers and authorities demand a more Sustainable Food production
- Key production elements still are the good old constants such as arable land, seed, water, fertilizer and crop protection .....
- Maybe there is a next green revolution or silver bullet around the corner.....

However....

- Efficient use of Ag Inputs is the one major aspect of both 'bottom line' as well as requirement of the general public for sustainable farming.



# Smart & Sustainable Solutions

with focus on efficient use of ag-inputs



- Making sure the best seed perform  
secure good germination & vigor  
make sure all 'on seed' enhancements (crop protection, micronutrients, antagonists) are applied safe & secure
- Making sure Ag Inputs are applied J.I.T.  
no waste of water, fertilizer, crop-protection
- Making sure optimal post harvest conditions  
maintain or create additional value
- Make sure your product is traceable; being it high value seed/crop inputs or reaped harvest.



A close-up photograph of a person's hands holding a small, vibrant green plant with numerous tiny white flowers. The person is wearing a light blue dress shirt and a dark tie. The background is softly blurred, focusing attention on the plant and the hands.

Some examples of new technologies that increase sustainability and who can adapt to a changing environment

## **SMART SYSTEMS**

## 1. Optimise seed quality

Good seeds are still the key input of agricultural output. The first green revolution was generated by hybridisation, fertiliser and first generation pesticides. The second green revolution was generated by second generation selective herbicides, second generation systemic pesticides and GMO supported herbicide and pest resistance. However, even the smartest seeds need optimal QA and optimal and safe 'on seed support packages' to ensure optimal plant stands.

Hoopman Group has > 40 years of experience in delivering Seed Quality Assurance- and On Seed Application technologies.

Go for individual technologies directly to one of the Hoopman Group companies on your right.

[More info](#)





Total Concept in Seed Technology

[Home](#)

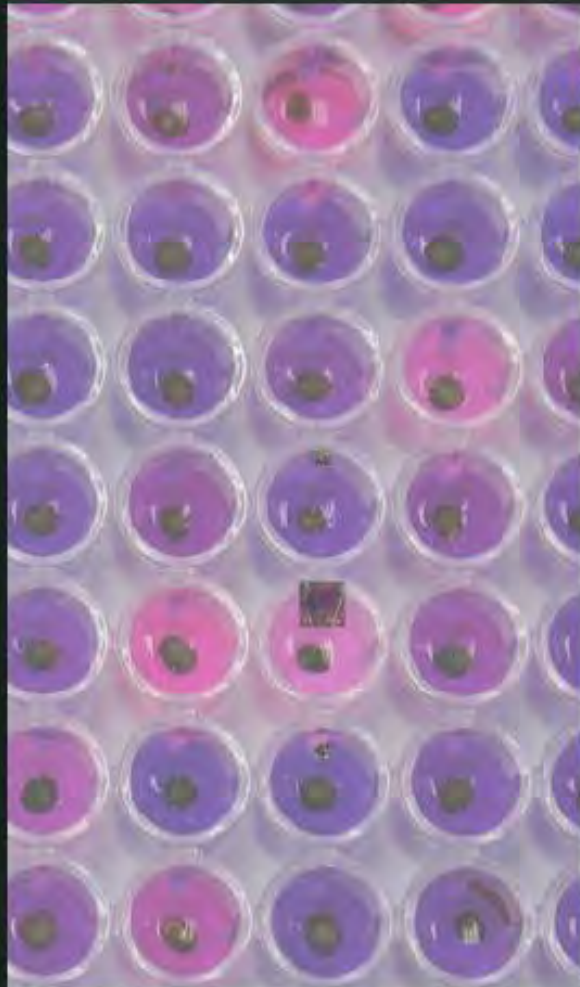
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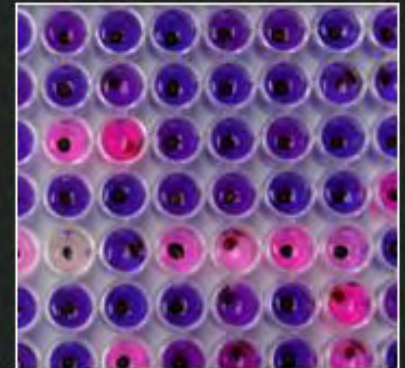
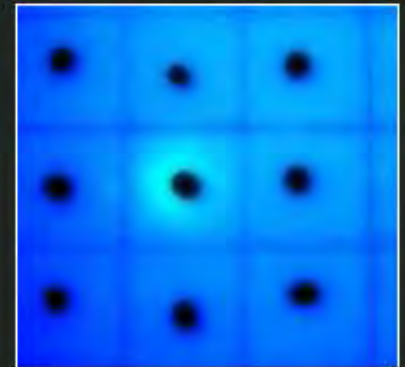


## Research & Development

We are determined to make the difference in seed technologies, worldwide. Therefore, we are searching for innovation in different fields and areas. We will adapt, re-engineer and improve these into dedicated top technologies for the seed and agricultural industry with the help of our partners and key-customers.

We provide a local sales point, training and maintenance services.

If you want to use these services, or you want to adapt certain technologies for your specific needs please do not hesitate to contact us.





Total Concept in Seed Technology

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Products & Services

ISA

Who we are

Contact Us

## International Seed Academy



www.internationalseedacademy.com



## Seed Captain® International Seed Academy

### Seed Captain Program Ten different modules

1. Seed Vigor
2. Seed Drying & Longevity
3. Seed Treatments, Coating and Pelleting
4. Seed Priming, Enhancing and Dormancy
5. Seed Upgrading & Sorting
6. Seed Production
7. Seed Economics & Marketing
8. Seed Breeding Language
9. Seed Pathology
10. Experimental Design, Analysis & Statistics



Tell me and I forget

Show me and I may remember



# Hoopman



equipment & engineering



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home

Home

## Welcome at Hoopman equipment & engineering b.v.

Hoopman equipment & engineering b.v. is one of the company's in the Hoopman Group. Hoopman has over 40 years of experience in developing equipment for the coating and drying of seeds. Beside the development of a unique drying system, we develop equipment for priming and disinfection of seeds.

By adding the product line of Seqso to our catalogue we have a full range of visual and non-visual upgrading systems available for all kind of seeds.



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engineering b.v.  
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News Messa

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**IP Protection**

Because of the agr  
we... | [read more](#)

**APSA 2012**

Hoopman equipme  
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product info

**IP Protection**

IntelliSeed™ techn  
grain,... | [read mo](#)

**Priming**

For more informati  
Functional... | [read](#)

**Westrup**

Hoopman represen  
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## Products

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- **Products**
- Way of working

### Pelleting & Filmcoating



Pelleting is a process in which a seed is coated with a selection of special powders. Purpose is to produce a round pil so the seed can easily be sown with a high precision. Depending on the crop, various types of pellets are offered.

[Read more details](#) or mail to:  
[Atlas@seedtech.eu](mailto:Atlas@seedtech.eu)

### Priming



Priming is a process in which seeds are pregerminated at controlled conditions in our laboratory.

After priming seeds can germinate much faster, more uniform and do not suffer from dormancy.

[Read more details](#) or mail to:  
[Atlas@seedtech.eu](mailto:Atlas@seedtech.eu)

### Upgrading



ATLAS can offer upgrading services like traditional calibration of seeds. In future we also will be able to offer Fluid Density Grading to have a more precise calibration of the seeds. On small scale we already can offer this technology to you.

[More details](#) or mail to: [Atlas@seedtech.eu](mailto:Atlas@seedtech.eu)

### Services



Besides our core-products (pelleting, filmcoating, priming and upgrading) ATLAS also offers services like packaging, germination trials and storage. In this way we offer a complete package for the South European Seedindustry.

[More details](#) or mail to: [Atlas@seedtech.eu](mailto:Atlas@seedtech.eu)

ATLAS S.R.L.

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P. IVA C.F.: 03287800969  
N. REA: 1451994  
Member of AIS (Associazione  
Italiana Sementi)



## 2. Measure growing conditions

Agriculture has great inputs available these days. Two green revolutions have created high yielding seed, high tech crop protection products etc. Modern electronics and the IT revolution create new opportunities to closer monitor field/greenhouse conditions and connect these to smart crop management systems.

This can drastically increase efficiency in of use of water, fertiliser and crop protection. It also enables the grower to better predict quality, quantity and timing of yield.

Hoopman Group is involved in development and supply of state of the art monitor, sensor equipment, data transfer and data management systems to put to practical use these new technologies.

Go for this innovative technologies directly to the Hoopman Group company on your right.

[More info](#)



## 3. Optimise post harvest conditions

High yield can be easily lost through poor post-harvest conditions. Particularly fruits and vegetables are perishable. Increasing shelf-life with a few days can mean tremendous value creation.

Hoopman Group is involved in development and supply of state of the art monitor, sensor equipment, data transfer and data management systems.

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**At this step involved companies**

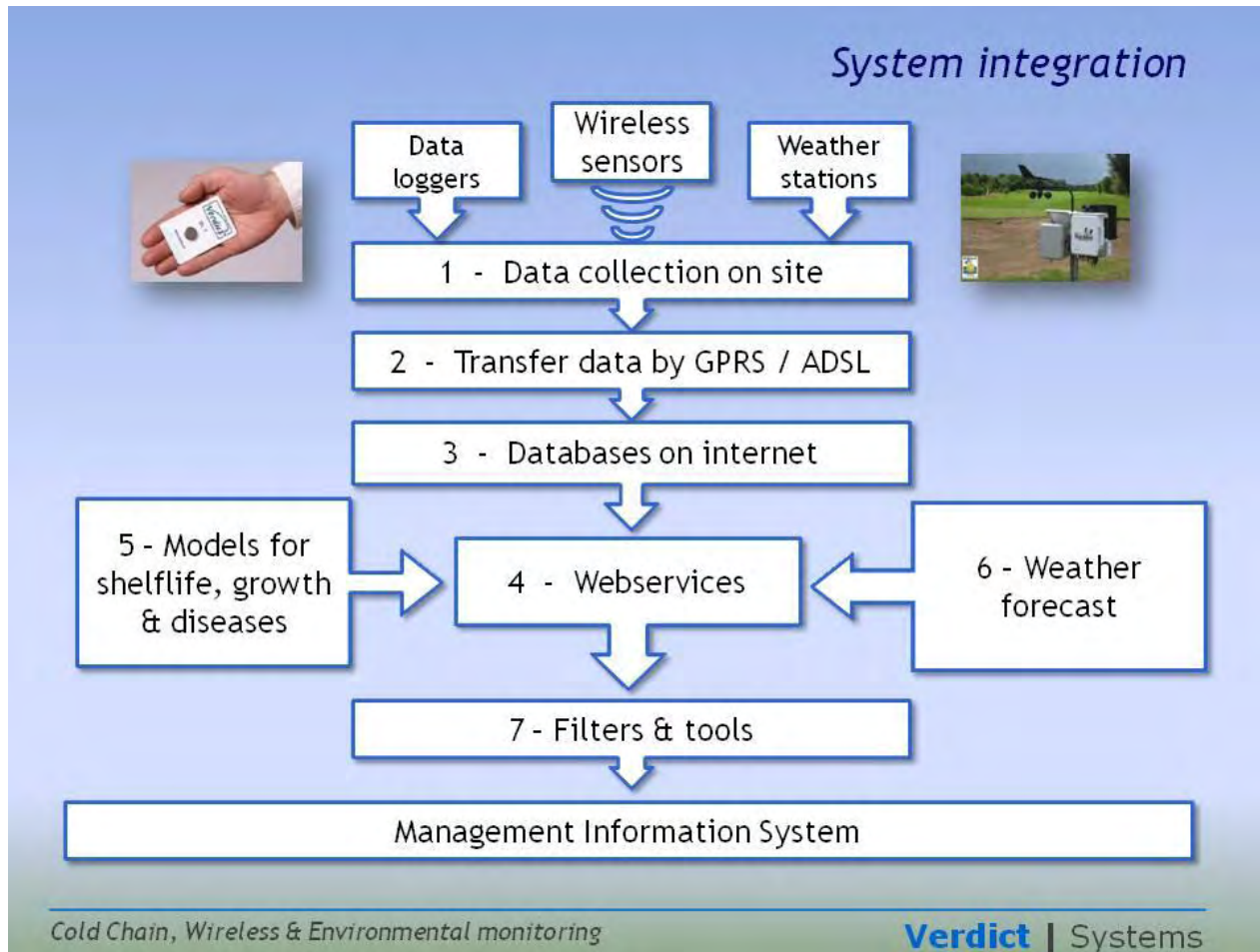
**Verdict  
Systems**

**Verdict Systems**

[www.verdict.eu](http://www.verdict.eu)

Tel +31 (0)543 - 479 6

# Verdict | Systems



## 4. Identify your product

Transparency from field to fork is becoming more and more important. But not only do you want transparency for the consumer; securing value (Brand and/or IPR) and reducing risk of diversion or unjust claims regarding your product or brand are of key interest too.

Hoopman Group is involved in development and supply of state of the art physical marker systems for seeds, plants, produce, agricultural commodities, packaging etc. that can help you secure Brand/IPR value as well as reduce.

Go for this innovative technologies directly to the Hoopman Group company on your right.

[More info](#)

## Seed Security

[Seed Security](#)
[Seed Coating Materials](#)
[Packaging](#)
[Equipment](#)
[Plant Markers](#)
[Specialised Products](#)
[Why Apply Polymers?](#)


IntelliSeed™ technology enables seed, grain, and other bulk commodities to be identified accurately and cost effectively right down to an individual batch number. This provides both detection of counterfeit target commodities, and a control mechanism for internal or cross border end-to-end supply chain management.

The IntelliSeed™ system combines overt and covert identification techniques delivering high security with flexible identification of products. IntelliSeed™ integrates discrete DataDots, or micro-labels, which carry textual information such as a serial number and PBR owners name.

A secondary form of identifier can be applied in the form of Tracers which are highly specialised materials with uncommon physical properties. Tracers can be incorporated into many materials as a simple enhancement of materials used in the existing treatment process. The Tracers can also be applied to seed surfaces and packaging via inks and coatings.

The IntelliSeed™ system enables an IP/PBR owner to securely identify their property/seed, thereby assisting in the prevention of:

1. Counterfeiting
2. Product diversion, and
3. False warranty claims

IntelliSeed offers:

- Proof of ownership
- Generic batch ID's "on seed"
- In soil traceability
- Forensic proof of origin



DataDots on seed



IntelliSeed pelleted seed (in the process of germinating)

### Links

Follow us on twitter  
 Become a fan on Facebook



1. SECURE VARIETY/LOT INTEGRITY
  2. SECURE IP PROTECTION
  3. PREVENT FAULSE CLAIMS
- BY
- A. MARKING THE SEED, PLANT, FRUIT
  - B. SECURED PACKAGING/LABELING

Also Part of Hoopman Group

**holaras**  **FARM IMPLEMENTS**





1. Optimize the quality

2. Measure the condition

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Hoopman Group  
supports  
seed companies  
and  
farmers  
to improve & protect their  
bottom line!

Hoopman



Group



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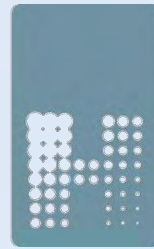
Danke fuer ihre aufmerksamkeit. Entschuldigung fuer sehr viel Neudeutsch. Und jetzt ueber zum Thema;

[www.hoopmangroup.com](http://www.hoopmangroup.com)

founding member of the 'global one stop seed technology shop'



# Hoopman



equipment & engineering



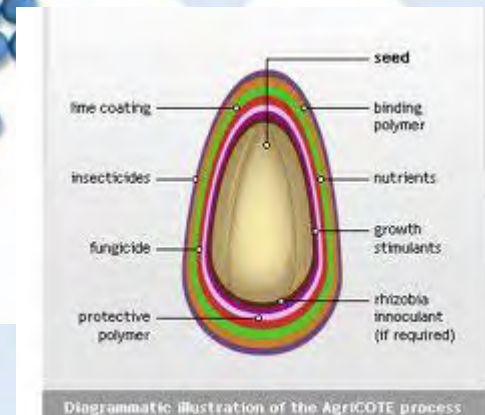
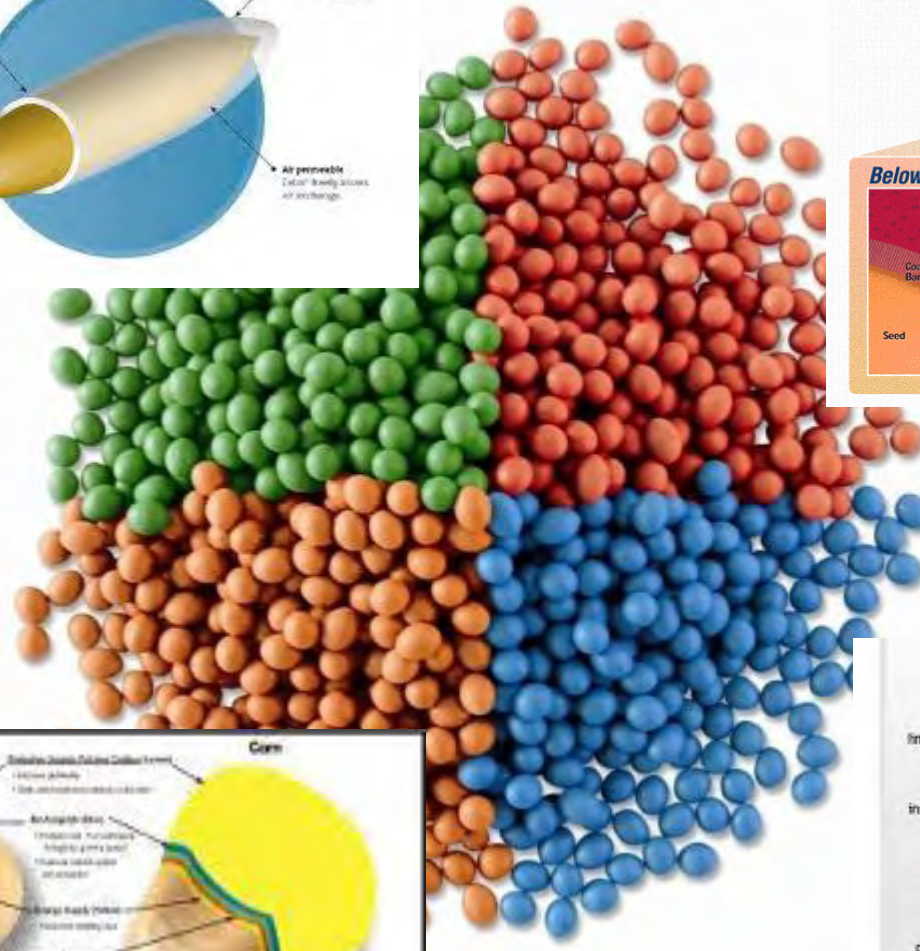
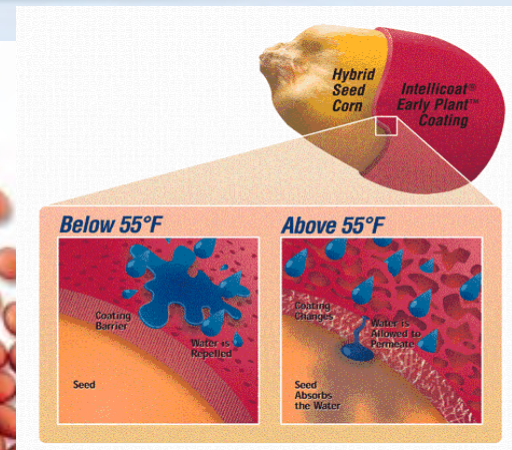
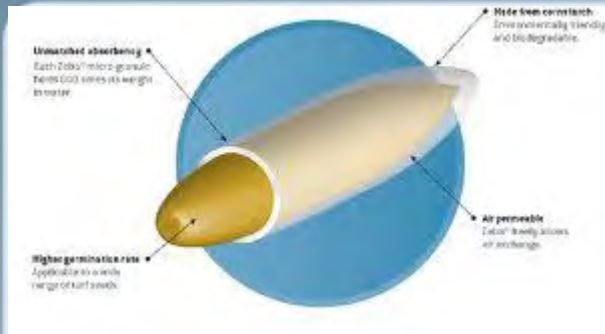
## **Sichere Saatgutbeizung auch bei Verwendung von Mikronährstoffen & Co – wie geht das?**

Hoopman equipment & engineering b.v.

address Akkermateweg 5A, 7122 LG Aalten, The Netherlands phone +31 (0)543 470 496 fax +31 (0)543 479 072

e-mail [info@hoopman-equipment.nl](mailto:info@hoopman-equipment.nl) internet [www.hoopman-equipment.nl](http://www.hoopman-equipment.nl)

# Sie kennen alle diese schöne bunte Welt von Pilliertes und Inkrustiertes Saatgut



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# Saatgut Coating Anlagen

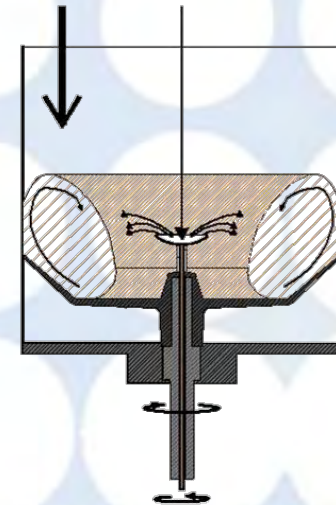


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# Chargen Beizung



Chargenbeizer brauchten bei Einsatz bei  
Pillierung & Inkrustierung eine ganz neu  
Methodik für Trocknung

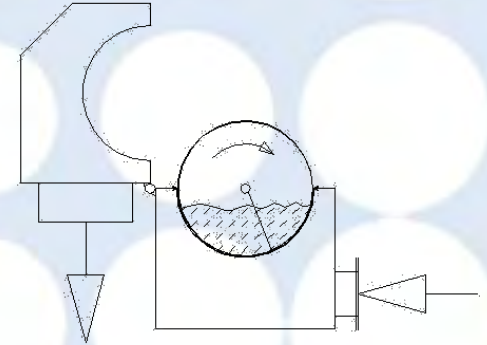
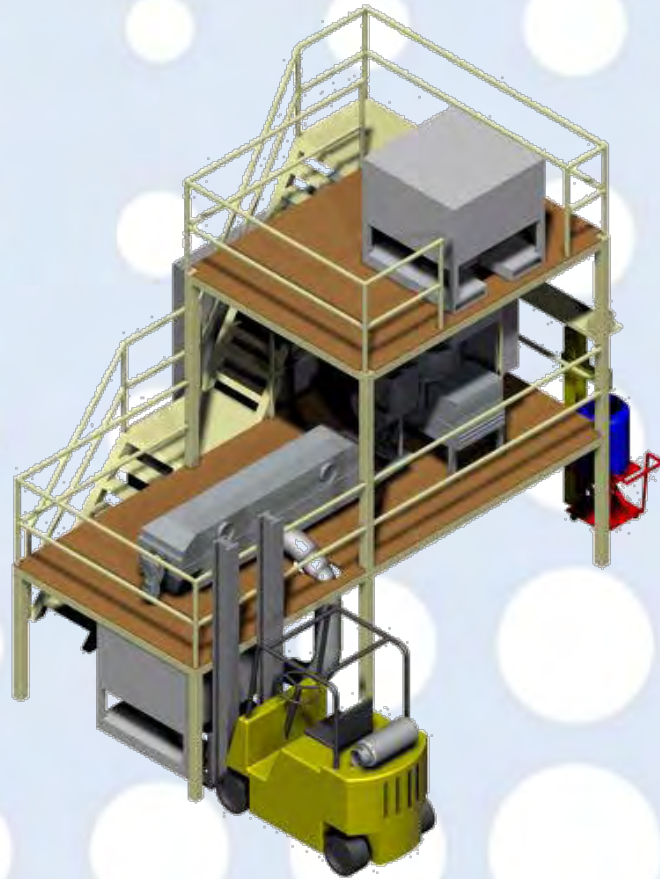


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# Inkrustierung & anschleissend Trocknung



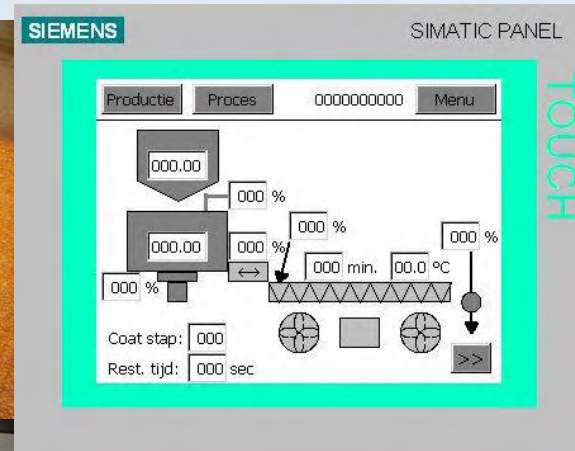
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# Anlage HR600ASFCP mit RFBD-600



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# Anlage HR600ASFCP mit RFBD-600



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# HR350 mit RFBD300



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# HR350 with RFBD300



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# HR600ASFC with RFBD600-12



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# Grass Tockner RFBD600-19

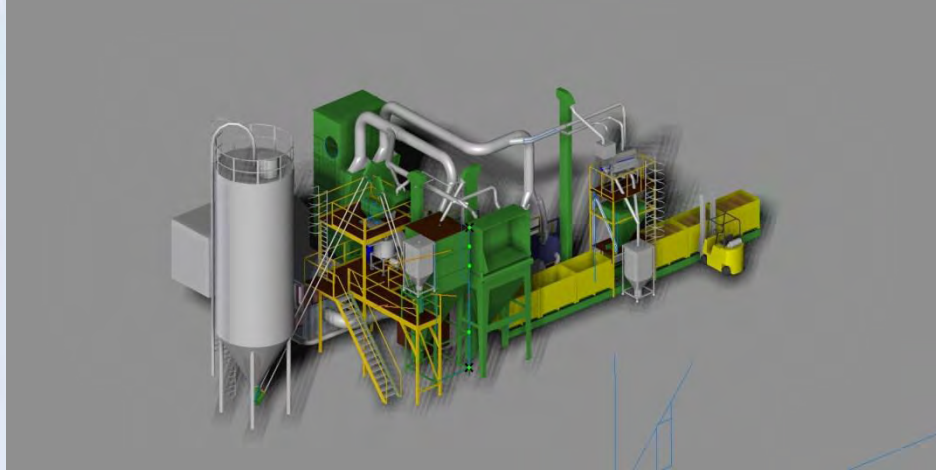


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# Schlüsselfertige Anlage Barenbrug



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# ‘BDP/JKI Projekt Staubfreies Beizen

- Bei Zuckerrüben schon seit jeher hoch technisches Pillierverfahren.
- Bei Raps schon seit jeher hoher Dosierung von Pflanzenschutzmittel.
- Bei Mais auch seit einiger Zeit Inkrustierung mit relativ hohe Mengen an Pflanzenschutzmittel  
.....leider 2 Jahre Ausgestzt
- ESA/BDP ESTA/Seedgard Initiative
- Aber wie sieht es bei Getreide aus??



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# Kann man diese gut funktionierende Technik einsetzen für Getreide

- BDP/JKI Initiative zur Optimierung der Getreidebeizung; weil Staubanfällig (Roggen)  
Relativ alte Technik im Einsatz  
Immer mehr Zusatzstoffe wie Mikronährstoffe  
Kostensensibel
- Fragestellung; gibt es Übertragung von existierendem Wissen/Praxis?
- Ja;  
Kontinuität nach Chargenbeizung  
Bessere Abstimmung Haftmittel und Total an Feststoffen auf zu bringen  
Leichtes Konditionieren nach Auftrag und vor Absackung



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# Low Cost Film Curing System



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# Chargenbeizung & Zusätzliches Antrocknen

- Saatgut wird im Chargenbeizer (oder Contibeizer) ge-coated mit diversen Pflanzenschutzcocktails.
- Contibeizer hat dem vorteil dass sehr genau eine vielzahl an producte auf dass Saatgut dosiert werden koennen.
- Sehr leicht um fuer zusatzliche Mikronährstoffe notwendiger extra Haftmittel ein zu setzen.
- Saatgut sollte nicht zu lange im Contibeizer verbleiben weil dann Abrieb/Staub entstehen kann.
- Fliesfähigkeit wird wesentlich verbessert nach leichtes antrocknen.
- Im conditioner kann eventueller Abrieb (wie zum beispiel bei Roggen) entfernt werden.



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# Vorteile Low Cost Film Curing System

- Kann einfach hinter existierender Analge montiert werden
- Versichert Antrocknen von Schicht mit darin alle Feststoffe (Fungizide, Farbstoffe, Mikronaehrstoffe, Molluskizide Nematizide ....Insektizide.....
- Angetrocknerter Filmschicht ergibt eine Verbesserung der Rieselfaehigkeit.
- Sehr gründliche Entstaubung weil ca. 1-2 minuten Verweildauer.

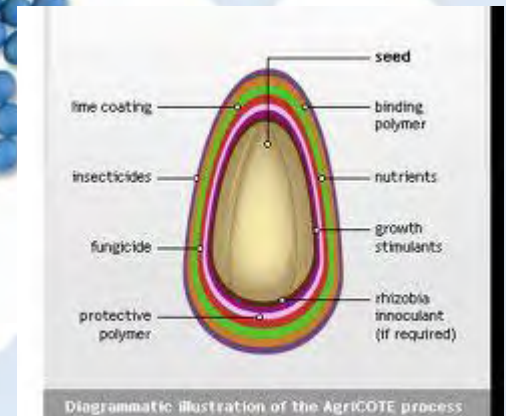
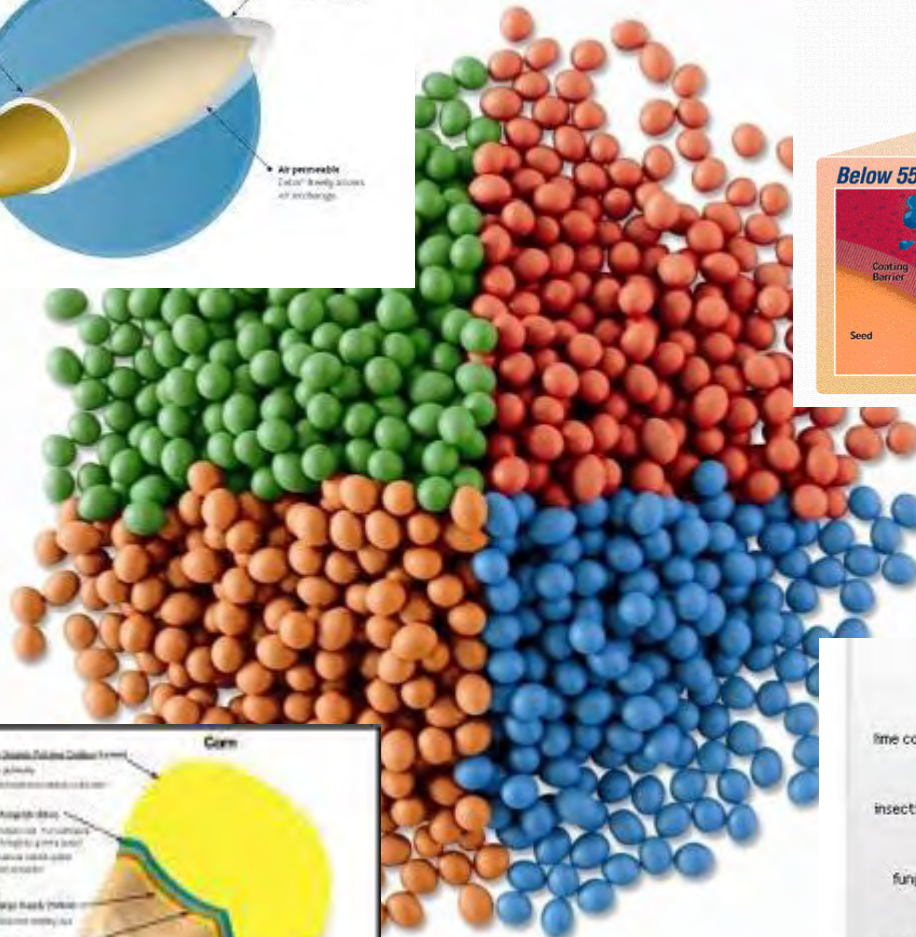
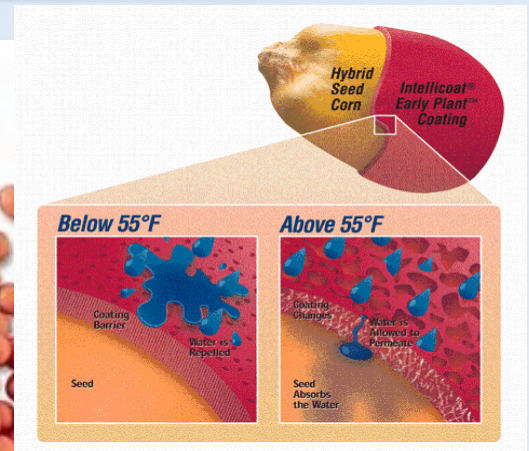
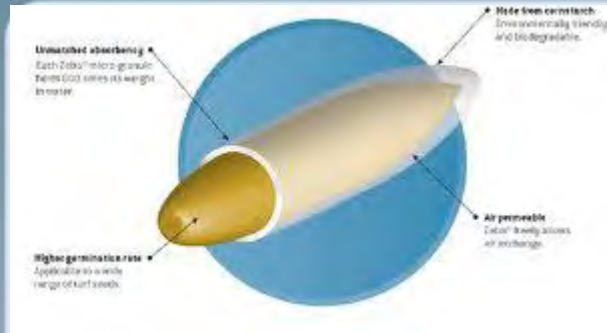


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# Und willkommen in die schoene neue Welt der



 **Hoopman Group**

Founding member of:



**Centor Group**

# Danke Sehr Fuer Ihre Aufmerksamkeit .

- Entschuldigung fuer ein nicht sehr perfektes Deutsch

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