

#### Adare, Co. Limerick, Ireland. Tel: +353 61 396176

Email: info@samco.ie Web: www.samco.ie



outube.com/samcoagri



#### Who are SAMCO?



- We are a family run business from
   Ireland, which was set up in 1996 by
   Samuel J. Shine.
- We are the original inventors of the 3 in 1 maize drill and we also manufacture all the degradable film for the SAMCO System which accounts for 80 of our business.
- Design and manufacture of specialist machinery and degradable film for the Agricultural crop market.







#### **How does the Original SAMCO System work?**

Early Plant Development of maize sown in the open VS Samco System

Height



46 days after sowing

74 cm

95 grams

65 mm

34 cm

10 grams

30 mm

The system acts a mini degradable green house retaining moisture and heat to reduce germination time and increase early root development. The mini green house allows early planting in frost prone areas and therefore lengthens the growing season in that region.



Soil analysis

Applying correct fertilizer programme

Sub-soiling and seed bed preparation

Samples taken for analysis



Suitable seed variety for region

Inspection of crop during growing season

Qualified Samco drill operator Samco drill and degradable film Correct weed control programme



#### Range of SAMCO Drills sizes 1.2m to 6m













# Samco range of Degradable Mulch film

Specialise in thin Degradable film.

5.5 to 20 micron in degradable film.

Patented ventilation systems in the film.

Uniquely designed films for specific purposes.



#### Samco film Testing



We test many Formulations every season for:
 Laying capacity/ Performance
 Crop growth
 Degradability
 Crop Yield analysis







#### **Research & Development**

- Weather Stations
- 1. Moisture
- 2. Air

Temperature

3. Soil

Temperature

- 4. Humidity
- 5. Rain fall
- 6. UV levels
- 7. Wind speed



# New range in 2017: Punch planters for rice cultivation

Reasons for start of the project:

Requirement for reduction of weed presence in organic rice crop. Increase in yield requirement due to high demand of organic rice. Increase sustainability of organic crop to be grown. Reduction for the need for herbicides to be used in commercial crops. Reduction in requirement of water to grow the crop due to less moisture evaporation.

Reasons for success of the project:

Development of the film and machine in tandem with each other. Clear and understanding of the requirements of the project from all stakeholders. Observation of the complete process from cultivation to harvest.

Samco experience drawn from 21 years

Source: Novamont & Samco

#### Innovative New range in 2017: Punch planters for rice cultivation











# **Rice Cultivation results:**

Year	2015	2016	2017
Mulch film	BIO Black 18µm	BIO Black 15µm	BIO Black 13.5µm and
			15µm
Rice Variety	Volano	Several Varieties	Several Varieties
Crop density	20 plants/m <sup>2</sup>	20 plants/m <sup>2</sup>	20 plants/m²
Seeds quantity	2 seeds/hole	3 seeds/hole	3 seeds/hole
Method of film lying	Mechanical film and manual	Mechanical film and manual	SamcoPunchMachine film
	sowing	sowing	laying and sowing
Parameters	- Mechanical degradation	- Mechanical degradation	- Mechanical
observed	of the film	of the film	degradation of the
	<ul> <li>Crop production</li> </ul>	- Crop production	film
	- Weed control	- Weed control	- Crop production
			- Weed control
Results	- 25 stems /hole	- 25 stems /hole	
	- Production 96q/HA	- Production 76q/HA	
	- Less weeds compared	- Less weeds compared to	- Less weeds compared
	to not mulched crop	not mulched crop	to not mulched crop

Source: Novamont & Samco

### **Rice Cultivation Conclusions:**

The results obtained from the first three years of extensive trials in the rice – growing area of North West Italy (the first area for production in Europe) demonstrated that biodegradable mulches can suppress the growth of weeds, and at the same time reduce the quantity of seeds/ha, as well as enabling to reach high yield for a low impact technique (on average 6 tons/ha).

Furthermore, the use of biodegradable mulches is showing some interesting initial results in terms of reduction of pathogens and volume of water.

- 1. 80% seed saving with mulch vs not mulched.
- 2. Stem elongation: up to 30 stems per plant vs 20-24 stems in not mulched.
- 3. Early germination: up to 7 days earlier.
- 4. Early ripening: up to 10 days earlier.

#### Source: Novamont & Samco

### **Realisation of R&D projects**











# \* Adare, Co. Limerick, Ireland \* Tel: +353 61 396176 \* Email: info@samco.ie Web: www.samco.ie



twitter.com/samcosystem



youtube.com/samcoagr

