

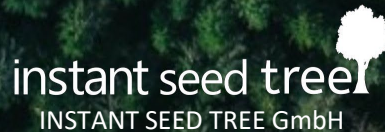
Tree seed coating technology for onto surface sowing

The future of sowing in afforestation



26. Jan 2023 VoWe / INSTANT SEED FOREST Pitch presentation LeonhardV 26Jan 1b e .pptx

Vertraulich – Weitergabe an Dritte nicht ohne Zustimmung von Instant Seed



Our Targets / Our Mission

Simplify tree seeding - make tree seeding climate resistant

- **save seeds** - more area with same seed quantity
- **increase sowing efficiency** - serve more area with less personnel
- **decrease costs significantly** - save personnel and time
- **safe and secure germination** - with easySeed®
- **make seeds climate resistant** - better resistance to storm and dryness



Big afforestation problems today

- Climate change** = dryness or heavy rain
prolonged periods of heat
water shortage / ground water level drops
heavier and more storms

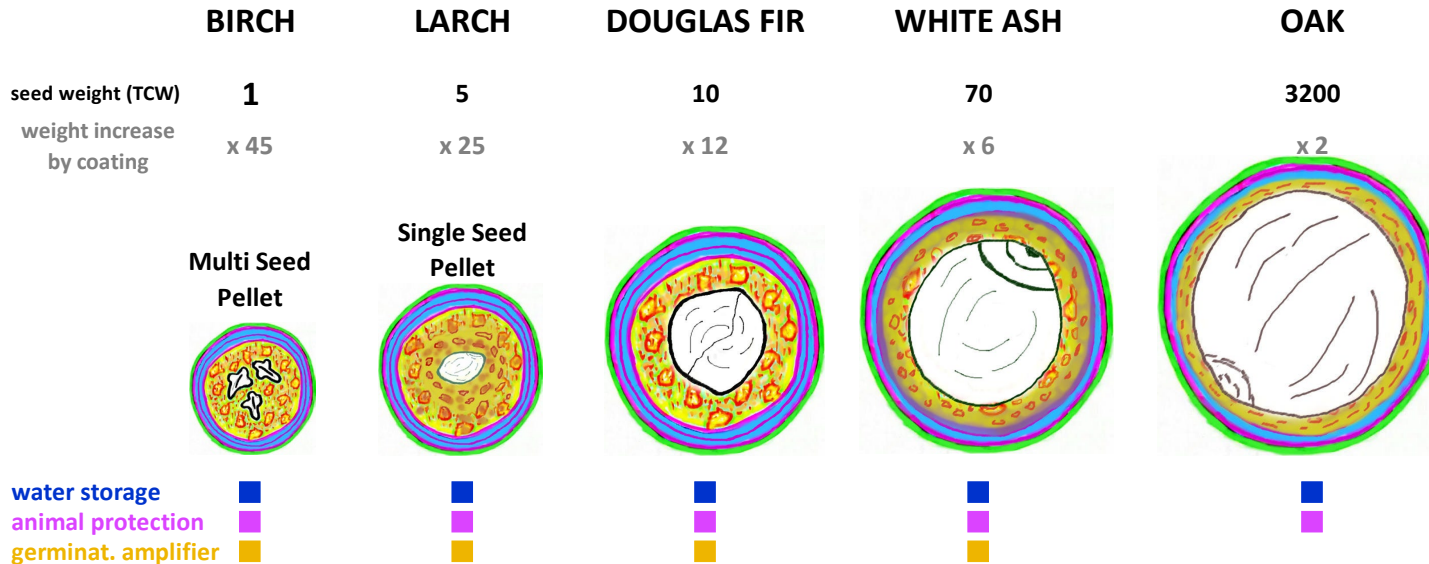
- Afforestation with seedlings** = root deformation (appr. 70%); no deep roots
expensive; staff needed for every seedling
tree losses increase (storm, dryness)

- Afforestation with direct seed** = high seed consumption
bigger losses by dryness, birds, insects, no germination

The inexpensive solution to survive and adapt climate change

Sophisticated Tree Seed Coating Technology „easySeed®“ with

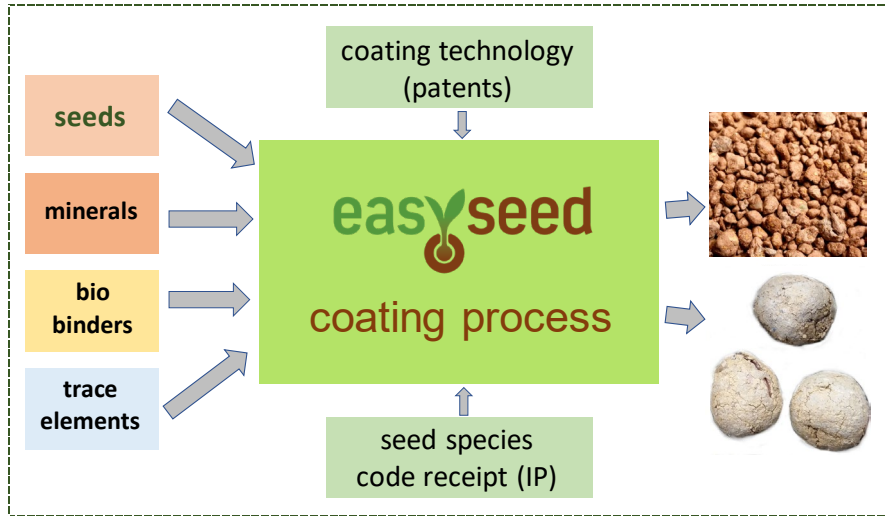
- embedded seed protection and seed development mechanisms
- **water storage** to bridge dryness periods during germination
- natural **vertical root** development
- **seed savings** (more area per seed)
- clear **cost reduction** for the whole process from seed to plant



The process for the solution

The complete intelligence to survive and grow with deep vertical roots

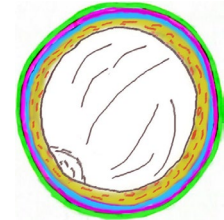
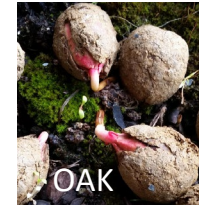
- is embedded in the matrix of the seed



simply sow,
spread
onto surface
by hand,
drone, tools



no need to know
anything about
the seeds -
simply spread it



- developed 2017 to 2022 by INSTANT SEED
- first public tests 2021 at Federal State Forestries in Germany (under NDA); disclosed to public Sept. 2022
- patent application in 2022 (all rights with INSTANT SEED GmbH)

Proof of technology ■ cost advantage ■ market potential

Latest proof of technology by LWF* Bavaria field tests (wood) in 2022

Test started end of April (sowing) - evaluation end of September

Conditions: 3 ha - near Bayreuth/Bavaria - worst climate conditions; 10 weeks dryness (30° ... 40° C) and no rain

			results after 5 months:	
CASE 1	tree nursery coating	best practice sowing	0 trees / ha	
CASE 2**	direct seeding	LWF best practice procedure	7,329 trees / ha	
CASE 3**	easySeed® pellets	onto surface sowing	39,829 trees / ha	(5.4 x more!)

Cost advantage easySeed®

- for all activities SEEDs, PROCESS(es), AREA PREPARATION WOOD and SOWING
 - 70% ... 85%** compared with (tree nursery) seedlings (seed consumption comparable to easySeed®)
 - 10% ... 15% compared with direct seeding (direct seeding has much higher seed consumption)

Market potential easySeed® (coating only)

- WORLD 2,100 mio US\$ p.a.
- Europe 490 mio US\$ p.a. target market next 5 years GER, SWE, POL, FIN, TUR 49 mio US\$
- Can, US 335 mio US\$ p.a. target market next 5 years CAN 177 mio US\$

* LWF = Federal States Bavaria Forest Institution (Landesamt für Wald und Forstwirtschaft)

** results published in "Bayerischer Waldbesitzer" issue 1, 2023

The implementation (market launch) of the solution

Concept = modular production facilities:

- plant technology is fixed
- to be placed world wide



Modular production facility

- Capacity **3 tons** (pellets) a day (150 days p.a.) / **400 sqm**
- to serve **50,000 ha** afforestation
- feeding radius 500 km
- investment **250 T US\$** / useful life **10 years**
- **staff max. 6 FTE**
- revenue **3 mio US\$ p.a.**
- **EBIT > 40%** (with cost advantages / see above)

To serve 25% of the local markets you need e. g. for

- SWEDEN = 2 facilities
- CANADA = 10 facilities

What we are looking for

We prepare setup of *instant seed tree GmbH* (for tree seed business only)

- we plan to sell shares to investors - up to 75%

We are looking for investors - one or several investors, ideally with synergy to afforestation

- next steps:
- hiring of sales staff for target regions is actual topic
- launching production facilities in 2023/2024 in **SWE, CAN**
 - **GERMANY** (scaling up equipment) to serve Germany, Poland, Denmark, Austria 1 facility
 - **SWEDEN** (new) to serve Sweden, Northern Norway and Finland 1 facility
 - **CANADA** (new) to serve first 1% of Canadian market 1 facility

We are ready for rollout - processes are clear and stable - production scale up Germany in progress

Contact

Dr. Volker Weiss

INSTANT SEED GmbH

Platz der Freiheit 1

15831 Mahlow

Germany

Phone +49 163 77 084 10

Fax +49 32 12 32 47 249

vw@instant-seed.com

