



EAST-WEST SEED
CAP PANAH MERAH

TSS Technology – New Production System in Indonesia

by: Adriyanita “Irin” Adin; 21 Oct 2020

PT East-West Seed Indonesia

Sahabat petani yang paling baik

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CV – Irin Adin



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Birthplace and Date: Tarakan, 23 January 1976
Religion: Islam
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Job Function:
 2003-2004: Assistant Plant Breeder
 2004-2009: Plant Breeder
 2009-2013: Senior Plant Breeder
 2013-Now: Crop Breeding Manager Group D
 (Allium, Brassica, Legume)



Varieties Development

Sanren F1



Kanton Tavi



Aquina F1



Shinta



Education:

No	Grade	Name	Major	Start	End
1	SD	SD BPI BANDUNG	.	1982	1988
2	SMP	SMPN 7 BANDUNG	.	1988	1991
3	SMU	SMAN 1 BANDUNG	.	1991	1994
4	S1	S1 UNIVERSITAS PADJAJARAN BANDUNG	PERTANIAN	1994	1999
5	S2	S2 WAGENINGEN THE NETHERLANDS	PERTANIAN	1999	2002



OUTLINE

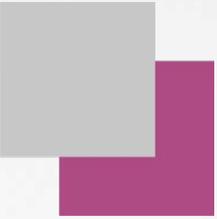
1. TSS Milestone

1. TSS Tech – New Production System in Indonesia



TSS Milestone





BACK GROUND



Shallot is one of important crop in Indonesia



2018
PRODUCTION
1.503.436 TON



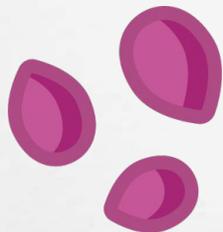
HARVEST AREA
156.779 Hectare
(BPS, 2018)

Conventional –
planting –
using mother bulbs



Challenge of using planting bulbs are:

- **Cost – Expensive**
- **Availability – Scarce**
- **Need Storage – Big amount to store**
- **Infected and/ Carriers of Pest and Disease**

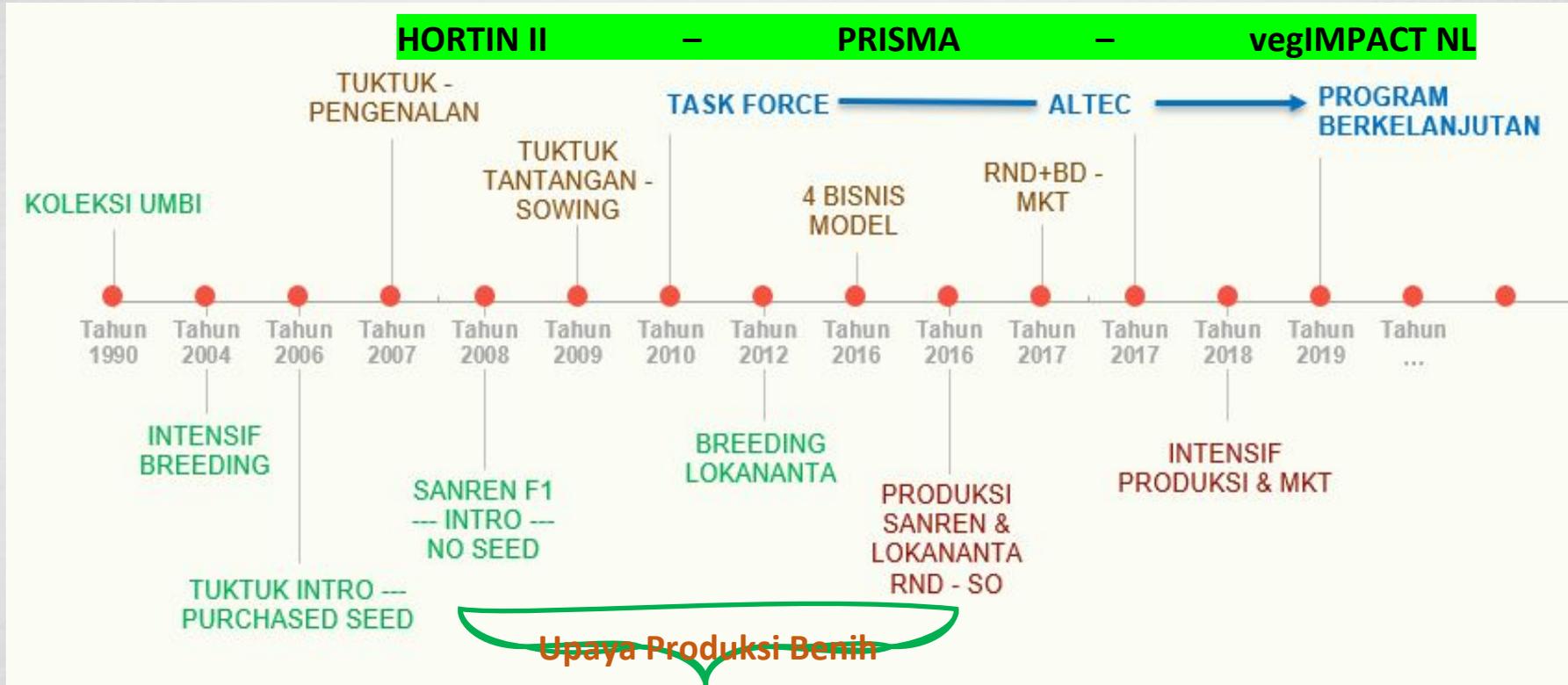


Alternative planting is using seed:

True Shallot Seed (TSS)



TSS Milestone



TEKNOLOGI TSS – TEKNOLOGI

3M

**MUDAH, MURAH, MENGUNTUNGKAN
(EASY, COST EFFICIENT,
PROFITABLE)**





MUDAH – EASY

1. Easy for Transport
2. Easy to Sow any time
3. Easy to Plant





MURAH – COST EFFICIENT

Nursery 1000 m² → for planting 1 Hectare

NO	ITEM & MANPOWER	Price
1	Seed 5kg @Rp. 3,000,000	Rp 15,000,000
2	Fertilizer-NPK	Rp 200,000
3	Pesticide (Insecticide & Fungicide)	Rp 300,000
4	Rice hustle 500 sacs @Rp.3000	Rp 1,500,000
5	Shading 1000 m2 @Rp. 3500/m ²	Rp 3,500,000
6	Workers (1 hok = Rp 70.000)	Rp 1,500,000
7	Other expenses	Rp 1,000,000
TOTAL		Rp 23,000,000

Planting Bulb for 1 Hectare

NO	ITEM & MANPOWER	Price
1	Bulbs @Rp 30.000/kg	1400 Rp 42,000,000
2	Bulbs Cutting	20 Rp 1,400,000
TOTAL		Rp 43,400,000





MENGUNTUNGKAN – PROFITABLE

High Yield (15-20 ton/ha)

Average Nationally is 10 ton/ha



11 Okt 2020 17.48.50
Jalan Lasoso
Lolu
Sigi Biromaru
Kabupaten Sigi
Sulawesi Tengah
Pameran LOKANANTA





OUR PRODUCT

<https://www.youtube.com/watch?v=ZcY3sPsnRX4>

LOKANANTA



SANREN F1



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TSS – SOW – NURSERY

NURSERY – SOWING

KEY SUCCESS is HEALTHY SEEDLING

It is a new phase for Indonesian farmers in planting shallot using seed.
No nursery of sowing was known in planting using bulbs.

IMPORTANT ALERT!!!

SOIL TREATMENT FOR MEDIA SOWING – CRUMB MEDIA

Seed and nursery for transplanting into 1 ha :

- TSS need 4-5 kg
- TSS sown in 750-1000 m²



SUCCESS KEYS – NURSERY

Focus:

1. Soil Texture – Crumble
Treatment burning rice husk (Benefit; Crumble – Fumigation – Weed)
Tool: Yes-Small Hoe – No-Hoe



2. Watering as needed
(Water check use hand; timing ; watering tool)
Water Drainage



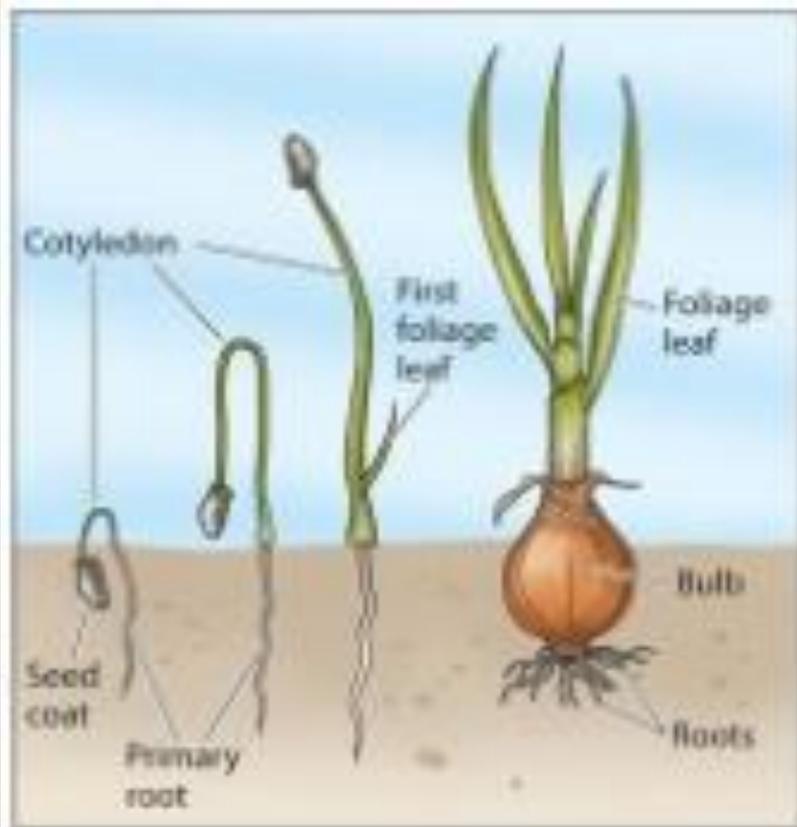
ALAT SIRAM

Benih bawang merah berukuran kecil, untuk persemaian harus diperhatikan ukuran lubang alat siram



First Sign of Good Sow Media

Sign of crumble media in seedbed is the lifting of the seed shells when the seeds germinate



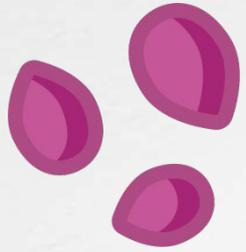
Seedling Ready to Transplant

SEEDLING READY TO
TRANSPLANT

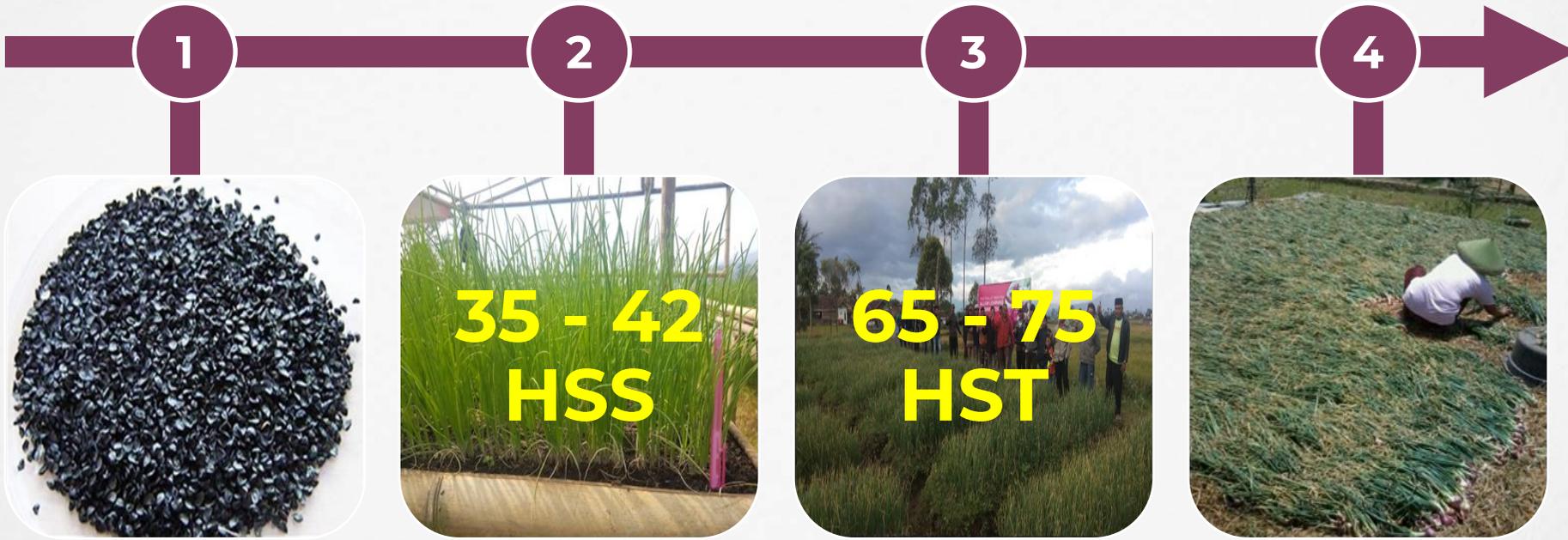


- Sturdy
- Leaf freshly green
- At 6 weeks
- 5 - 6 leaf blades





TSS Cultivation Phase



4 Business Model – 2016



Bulb Farmer

Bisnis Model 1 – UMBI BIBIT – MINI UMBI

Team: BD and MKT
 Variety: Tuktuk
 Location: NTB (Lombok, Sumbawa, Bima)
 PIC: Sentot (BD), ASM+MR+PP (MKT)

Bisnis Model 4 – UMBI utk INDUSTRI

Term of Condition:

1. Pickles-Mini Size could be resulted only by using TSS, sow in a row with close distance
2. Indofood machine size
3. Bulb harvested in 3 months
4. Could be sell without storage, for fresh market

Team: BD & MKT
 Variety: Tuktuk
 Location:
 PIC: Ignatius Agung Pratama

TSS Farmer

Bisnis Model 2 – PETANI TSS MANDIRI

Term of Condition:

1. Farmers are ready to use TSS using any option of cultivation methods
2. TSS available, farmers absorb
3. Need No Stewardship

Team: MKT
 Variety: Sanren F1 and Syn 8705
 Location: Brebes, Nganjuk, Palu
 PIC: ASM, MR, PP, Miftah

Bisnis Model 3 – PEMBERDAYAAN SEEDLING TSS

Term of Condition:

1. Potential farmers do not have enough space and capacity to make healthy seedling
2. Seedling farmers are available to do the business
3. The location is potential for more plantation expanding
4. Intercropping is a habitual

Team: MKT
 Variety: Tuktuk, Sanren F1 and Syn 8705-Lokananta
 Location: National
 PIC: ASM, MR, PP, Miftah

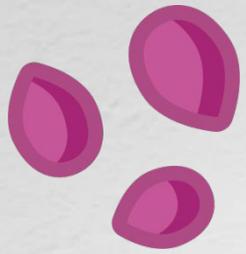


TSS – Seedling Business



Benefit for Farmer	Cost Comparison Seedling vs Bulb
Field: 100 m ² in 40 days: Seed - 1 kg = Rp. 3.500.000 Rice husk: 60 sacks = Rp. 300.000 Manpower: Rp. 700.000 <hr/> Total cost = Rp. 4.500.000	Seedling from 1 kg = 200.000 seedling (if per seedling = Rp. 50) ~~~ Equal for planted in 3000 m ² <hr/> = Rp. 10.000.000
Margin for Seedling Farmer in 40 days: <hr/> Rp. 10.000.000 – Rp. 4.500.000 = Rp. 5.500.000	





TSS New Prospect

1. TABELA – TANAM BENIH LANGSUNG
2. MECHANICAL IMPLEMENTATION
3. WATERING – SPRINKLE APPLICATION





TSS BOOK





Thank
you