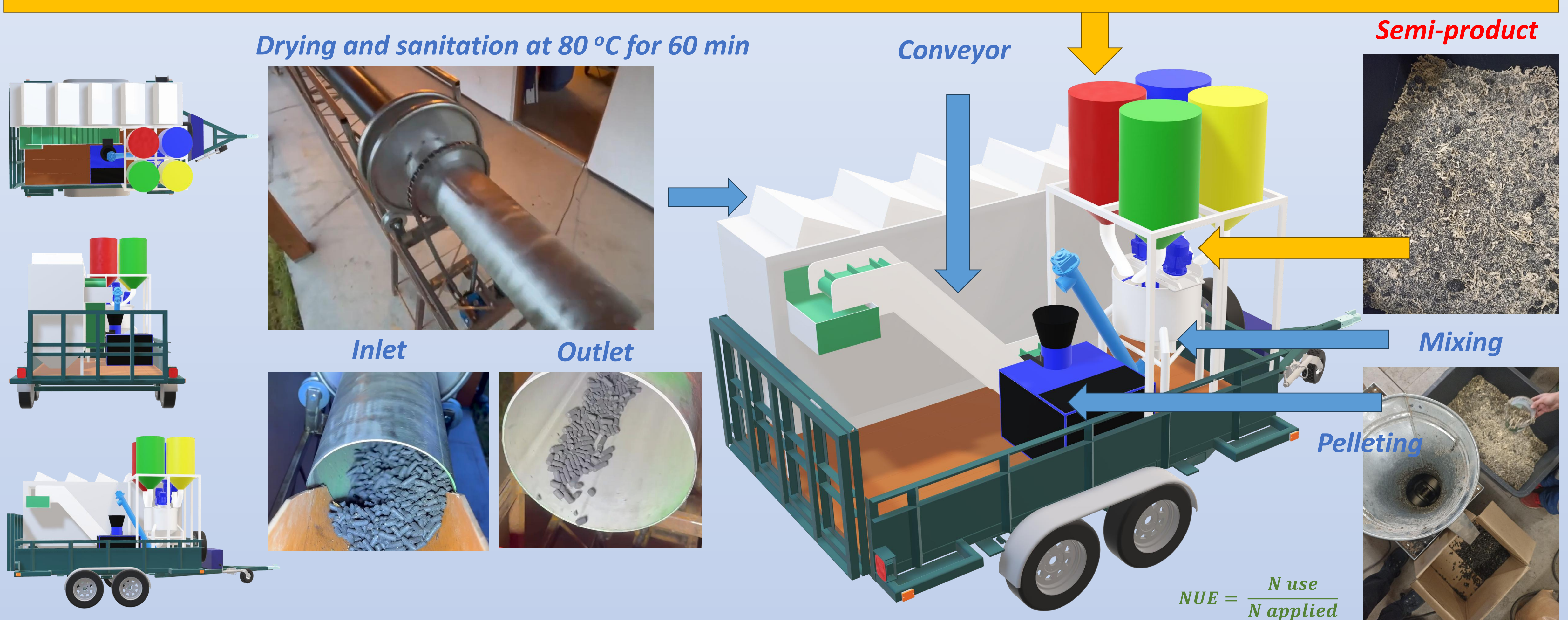


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<https://interreg-baltic.eu/project/cinurgi/>

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Production of pelletized Recycled Nutrient Fertilizers from various waste feedstocks on-site in a mobile installation and their agronomic validation via greenhouse studies



COOPERATION MODEL

With small and medium-sized sewage treatment plants, biogas plants, and waste management plants

1. Temporary loan of installation on-site
2. Construction and delivery of a device on the same/larger scale
3. Agronomic validation of the product in greenhouse conditions at the Polish Academy of Sciences Institute
4. Collaboration with Polish wastewater treatment plant manufacturers

Benefits for the plant

1. Development of a new product: fertilizer or soil improver
2. Report on fertilizer efficiency, N/ P use efficiency for: biomass yields, N/ P uptake, NUE, ANR, AE, and RAE calculations.
3. Real profits from product introduction
4. Improving the facility's CSR image
5. Improving the facility's economics

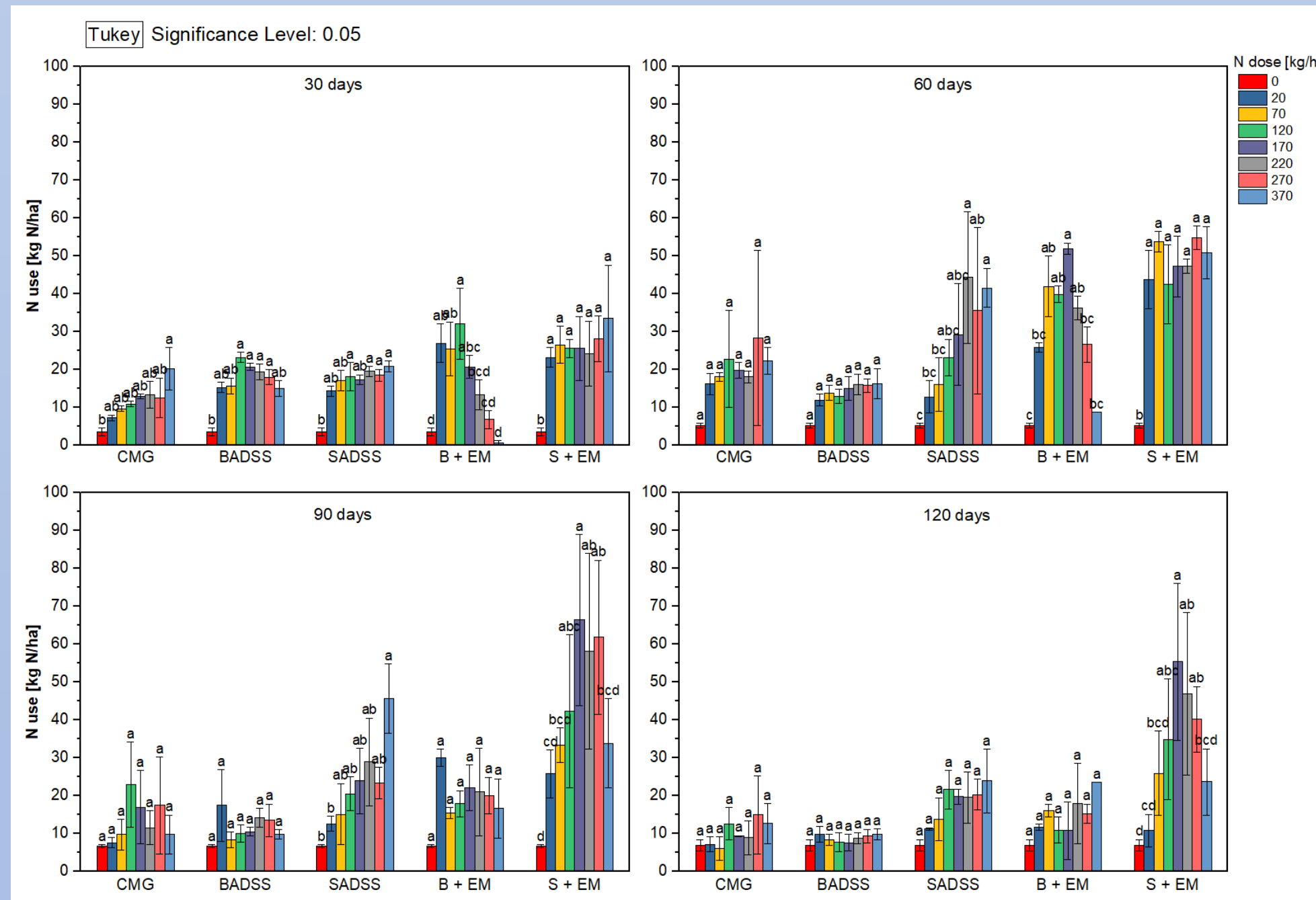
RESULTS: Pellets characteristics

Pellet	S.M. (%)	N (%)	P (%)	K (%)	P ₂ O ₅ (%)	K ₂ O (%)	Mg (%)	Cu (mg/kg)	Zn (mg/kg)	Cr (mg/kg)	Cd (mg/kg)	Ni (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	C org (%)
SADSS	88,2	4,93	1,64	9,2	3,76	11,09	1,26	84,4	1030	32	6,6	13,2	21,6	0,261	19,6
BADSS	78,1	0,62	1,44	7,2	3,30	8,68	1,13	80,5	1000	24,4	6,7	14,4	21,7	0,265	20,3

Nitrogen Use Efficiency (NUE)

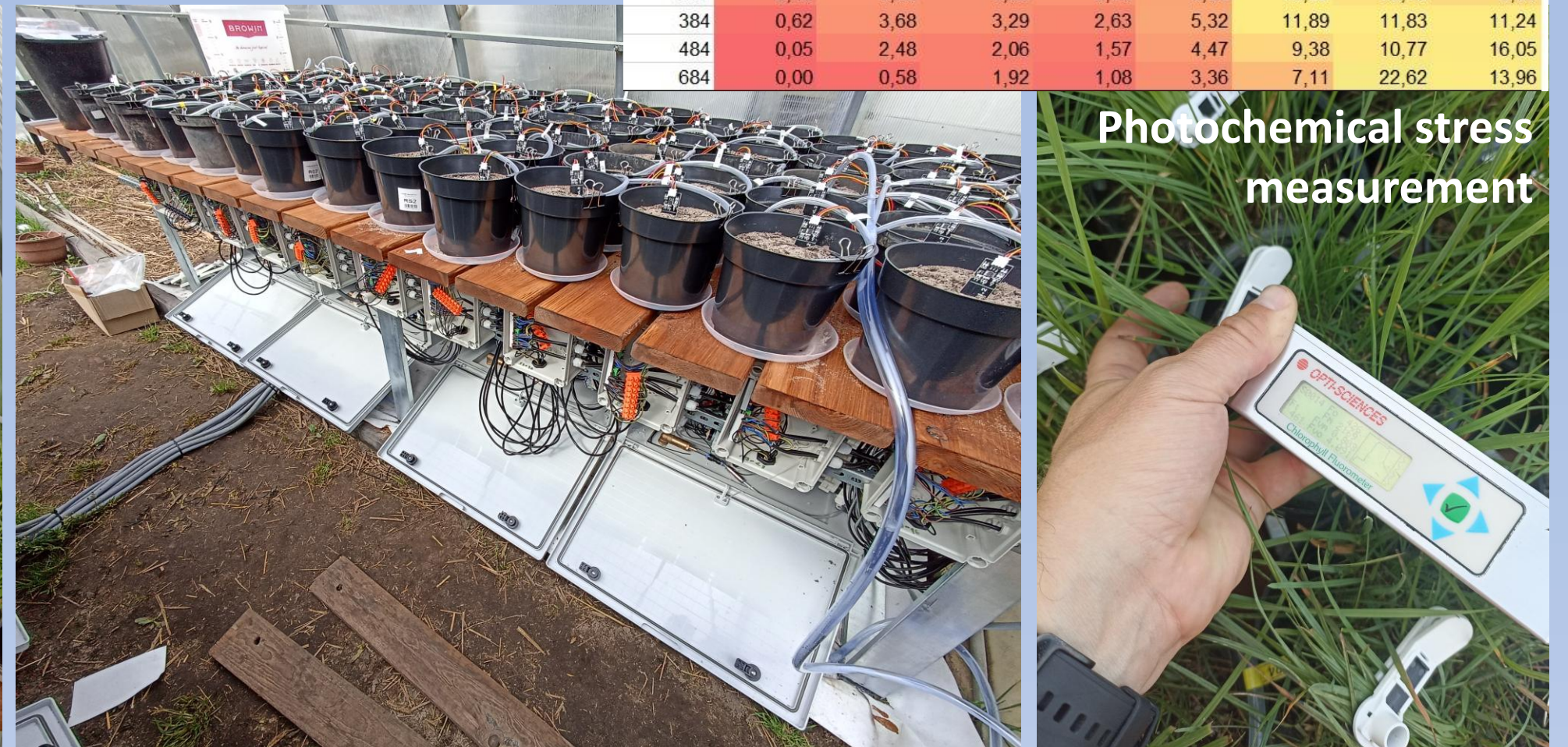
Dose	NUE for CMG (%)				NUE for UBG (%)			
	30 days	60 days	90 days	120 days	30 days	60 days	90 days	120 days
20	36,33	80,79	39,56	35,56	104,67	63,16	33,31	28,20
70	13,86	25,86	15,33	8,72	42,49	39,88	36,67	37,47
120	9,08	18,18	20,77	10,07	21,14	30,68	11,04	16,31
170	7,66	11,88	10,88	5,69	5,84	38,35	7,93	11,33
220	6,03	8,20	5,24	4,03	4,69	36,27	13,05	14,32
270	5,06	9,53	6,04	5,21	3,01	23,65	9,79	7,77
370	5,78	6,00	2,62	3,36	0,14	10,66	16,17	7,57

RESULT: N use



Greenhouse validation of the products

Auto-Irrigation



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