

**Based on what
do you select your grasses?**



Study Trip Sweden, 30 May 2023

BARENBRUG **DCB**

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Al 20 jaar in aanleg, onderhoud en ontwikkeling van gras!

Barenbrug, sinds 1904



Barenbrug, family business to the core

'When I see grass, I see more than a green plant. I picture a world of possibilities. If you can imagine it, I believe we can create it!'

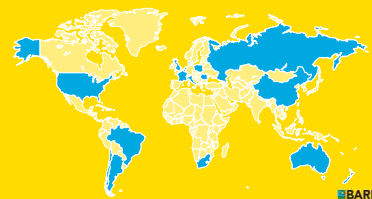


'Dad always put people first. People make the difference.'

Breeder and developer of forage and turf solutions



Barenbrug today: 18 operating companies



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Barenbrug today: research and development on 6 continents



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Research



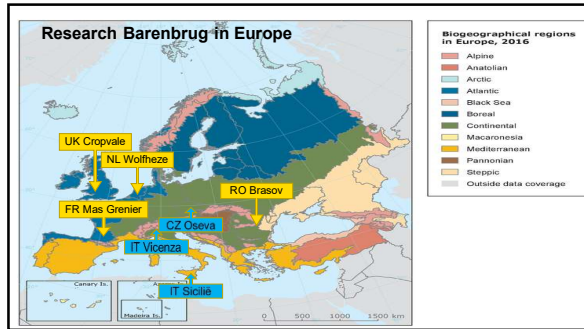
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Responsible for Europe



Biogeographical regions in Europe, 2016

- Alpine
- Anatolian
- Arctic
- Atlantic
- Black Sea
- Boreal
- Continental
- Macaronesia
- Mediterranean
- Pannonian
- Steppic
- Outside data coverage



Grass breeding

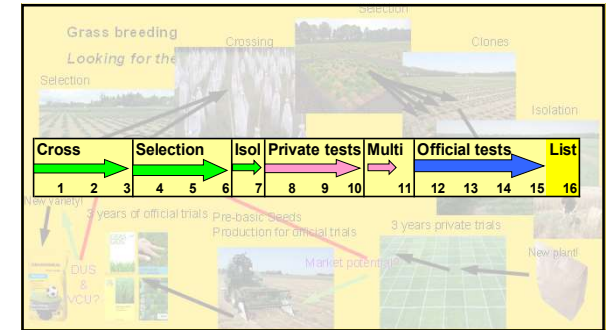
Looking for the best genetics

2:01:09 Eliud Kipchoge
25 September 2022, Berlin Marathon
21 km/h!!

Grass breeding

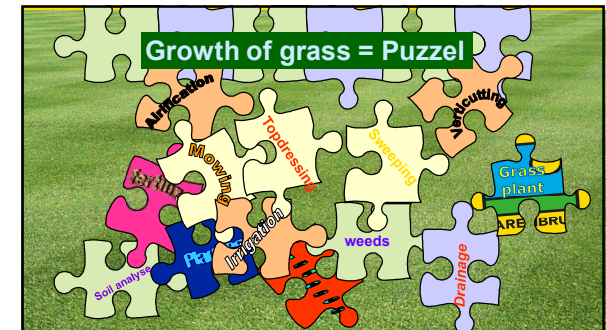
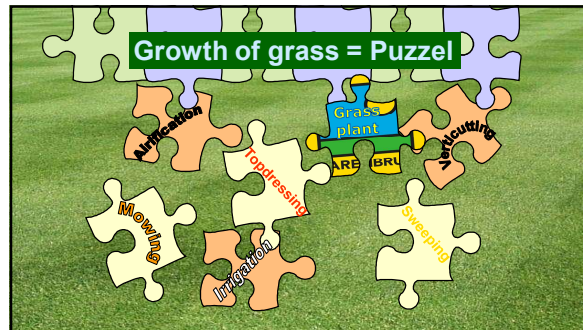
Looking for the best genetics

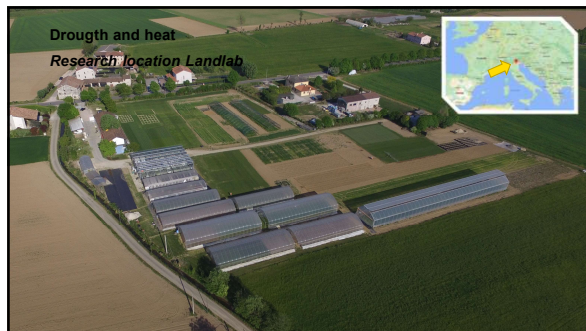
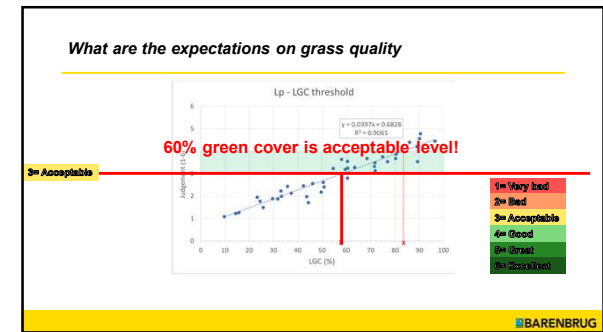
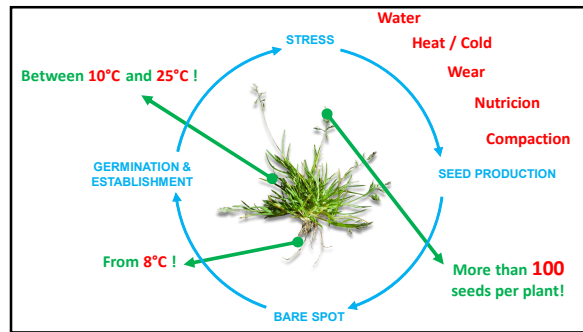
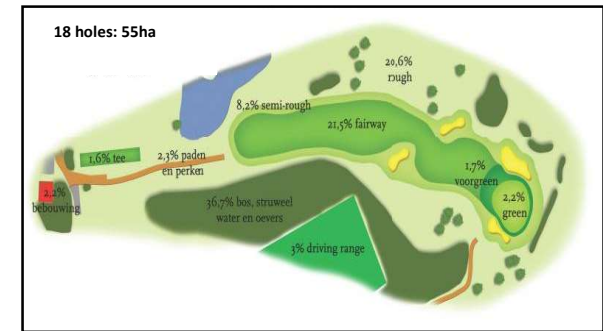
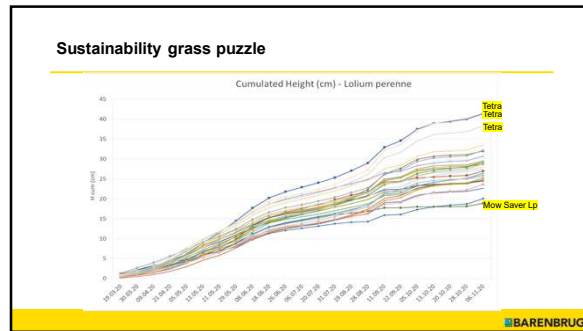
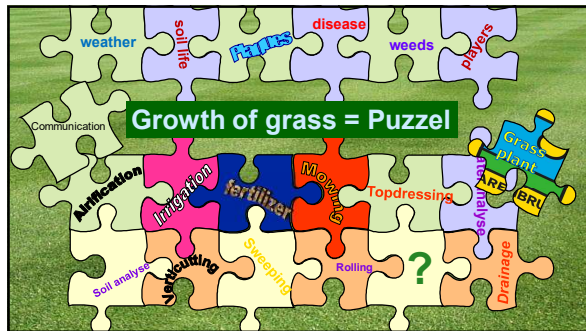
49"26 Femke Bol
400m WR indoor
19 februari, Apeldoorn



Only a position on national list gives right to sell

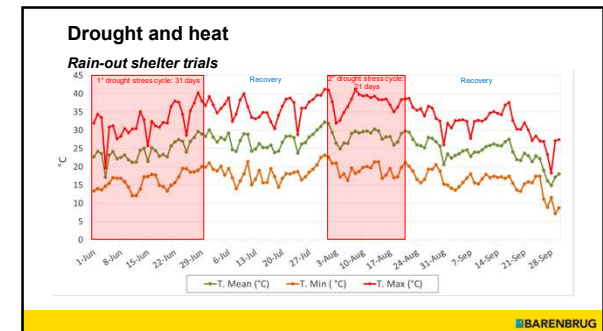
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Drought and heat
Research facilities

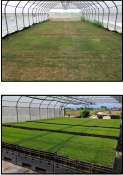

Rainout shelter	Trays	Pots
Big root effect big Limited genetic effect	Some root effect Big genetic effect	No root effect Only genetic effect



Drought and heat


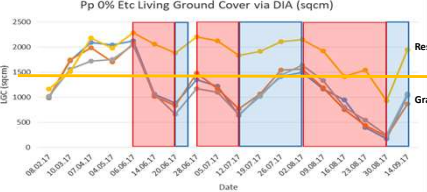
Conclusions rain-out shelter trials

- Big variation between Lolium perenne!
 - RPR lolium highest tolerance and fastest recovery after stress!
- Fine fescues suffer the most, least tolerant
 - Temperature is often killing
- Tall fescue in general strong
 - Only if it has deep roots
- Big differences between Poa pratensis
 - Some really terrible, some really good and better than tall fescue!
 - Strong combinations with other varieties and species possible


Drought and heat

Rain-out trials

Pp 0% Etc Living Ground Cover via DIA (sqcm)

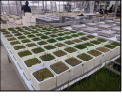

0% water restitution – LGC of Poa pratensis – 2017



Drought and heat

Pot trials in greenhouse

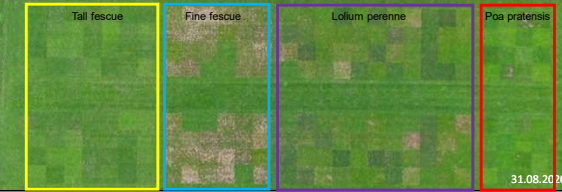
- Roots are limited -> different results!
- Direct effect of heat:
 - No water buffer
 - = No temperature buffer,
 - = No time for adaption!
- Tall fescue weak!
- RPR strong!
- Some Poa pratensis strong, but not all!


Drought and heat

Open field trials

Picture by drone – 31.08.2020

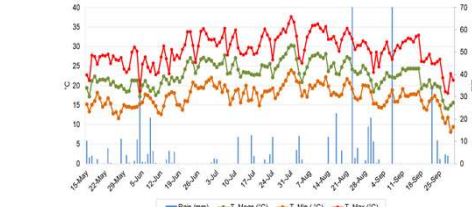



31.08.2020



Drought and heat


Open field trials


Drought and heat

Open field trials

Picture by drone – 31.08.2020



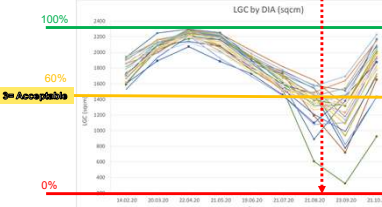
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Drought and heat

Open field trials

Lolium perenne



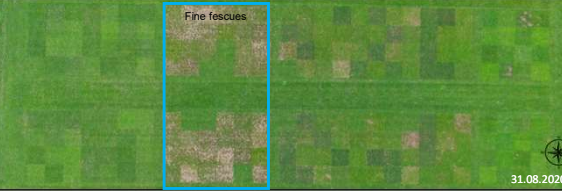
- Big differences in tolerance between varieties!
- Big differences in recovery between varieties!


Drought and heat

Open field trials

Picture by drone – 31.08.2020



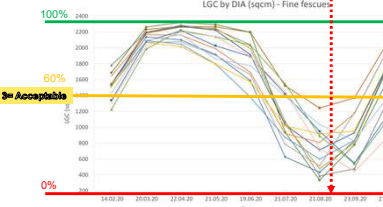
31.08.2020



Drought and heat

Open field trials

Fine fescues



- Big differences in tolerance between varieties and species!
- Big differences in recovery between varieties and species!

