Current status of evaluations of CGN lettuce accessions

- Rob van Treuren
- EVA Lettuce, teams meeting, 30 March 2020





Centre for Genetic Resources, The Netherlands (CGN)

Composition CGN lettuce collection

Lactuca	Accessions		Crop types	Accessions
L. sativa	1471	→	Butterhead	697
L. serriola	801		Crisphead	264
L. saligna	72		Cos	215
-			Cutting	197
L. virosa	72		Latin	57
Others	119		Stalk	31
Total	2535		Oilseed	10





Distribution CGN lettuce collection

Total collection available for utilization

- Periodical germination testing
- Annual regeneration programme
 - Low seed viability
 - Insufficient seed stock



- No regeneration backlogs
- High viability





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Characterization CGN lettuce collection

- Carried out by CGN in field trials
 - Morphological description
 - Mostly UPOV characters
 - Identity verification



- Majority CGN accessions done
- Current trial with ~160 recently acquired materials
- Data publically available
 - CGN website
 - EURISCO

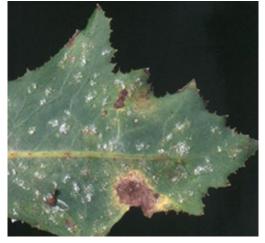




Evaluation CGN lettuce collection

- Collaborative screening programs with breeding industry
 - Seven involved companies
 - Mostly Bremia resistance screening
 - Data publically available after embargo
 - CGN website
 - EURISCO
 - Currently 42666 observations on 2102 accessions
 - Embargo on BI:29-31 (745 accessions) ends in 2020
- Current screening program
 - 833 CGN accessions
 - BI:32, BI:33, BI:34, BI:35, US9







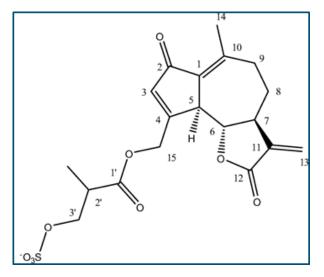
Omics data CGN lettuce collection

- DNA sequencing
 - Cooperation with BGI (China)
 - Entire collection
 - Data for 445 accessions
 - Cross section collection
 - Data available by the of 2020
- Metabolomics

VAGFN

- Cooperation with WUR-Bioscience
- 150 accessions
- Vitamin C and untargeted approach
- Data publically available





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