

MixBar – Screening of spring barley for organic variety mixtures

Purpose: increased yield stability, nutrient uptake and weed competition in spring barley

Variety mixtures in the organic variety trials 2017:

Num.	Navn	Sorter	Kriterier	Hovedformål
B1	Mixture 3 2016	Quench KWS Irina Fairytale Evergreen	Varying height, horizontal leaves, varying rootgrowth in deeper layers	Increased weed suppression, nutrient uptake and yield
B2	Upgraded Mixture 3	Dragoon, Thermus, Fairytale, Evergreen	Varieties all with covering leaves and with differences in shoot height and with deep root growth	Increased weed suppression, nutrient uptake and yield observed in 2016. Two new varieties with higher yield and similar characteristics.
B3	Upgraded Mixture 5	Fairytale, Evergreen, Dragoon, DZ-11013	Differences in shoots (from high- upright to low-covering) and roots (primary root growth in different depths)	Increased weed suppressions and yield stability. Two new varieties with higher yield and similar characteristics.
B4	Topsvarieties	Thermus, Laurikka, Flair, Evergreen	No other considerations of characteristics than yield	High yield
B5	New Diversity 1	Dragoon, Invictus, Thermus	Differences in shots (low shrub + medium height + higher covering) and roots (dominate in different soil layers)	Increased weed suppression, nutrient uptake and yield
B6	New Diversity 2	Dragoon, Laurikka, Thermus, Fairytale	Maximized diversity over a broad specter of root- and shoot characteristics.	Increased weed suppression, nutrient uptake



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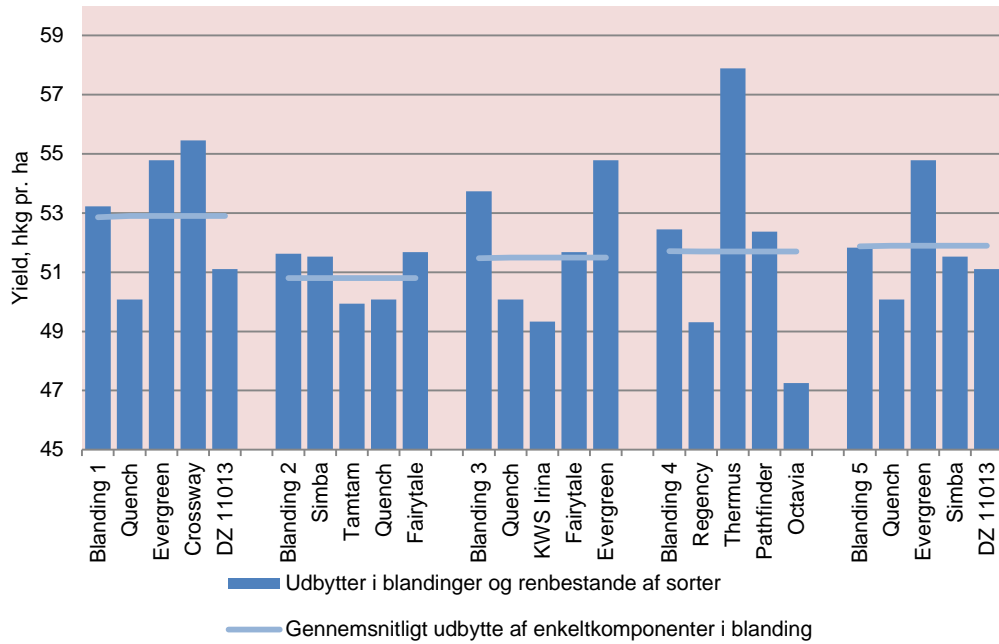
Variety trials 2016

5 variety mixtures with varieties chosen to have complementing characteristics considering root depth, leaf position and height of the plant.

Composition of variety mixtures 2016:

Shoots Roots	Varying height and horizontal leaves	From High-upright to Low-horizontal	Low-medium height Varying leaf angle
Varying root growth in deeper layers	Mixture 3: Quench KWS Irina Fairytale Evergreen	Mixture 1: Quench Evergreen Crossway DZ 11013	
Primary root growth varying from upper to medium deep layer	Mixture 4: Regency Thermus Pathfinder Octavia		
Primary root growth varying from upper to deep layer		Mixture 5: Quench Evergreen Simba DZ 11013	Mixture 2: Simba Tamtam Quench Fairytale

Yields in variety mixtures of spring barley



Weed biomass in variety mixtures of spring barley

