

Variety mixtures of as a tool in weed management

Spring barley

Why use variety mixtures?

- ◇ Yield stability
- ◇ Improved resistance against diseases
- ◇ **Better competitiveness against weeds**

Crop competitiveness: the key is to obtain a dense crop canopy during the growing season. Great crop biomass means low weed biomass, especially if the crop closes the canopy quickly.

So how do you obtain this situation with the information available?

Typical available information: *height at end of season, straw characteristic, tillering ability, yield and maturity timing.*

In the table below you can see that height in early season and leaf area are also relevant parameters. Below we have provided the information that we produced in the PRODIVA project on a selection of varieties.

Examples of characteristics of varieties plus the best mixture from PRODIVA (Dragoon-Fairytale):

Barley variety	Height early season	Height end of season	Tillering	Leaf Area	Crop biomass	Yield
<i>Evergreen</i>	Medium	Medium	Medium-High	Medium	Medium	High
<i>Fairytale</i>	Medium-High	High	Medium	Medium	Medium	Medium
<i>KWSlrina</i>	Medium	Medium	Low-Medium	High	Medium	Low-Medium
<i>Quench</i>	Medium	Low-Medium	Medium	Medium	Low	Low
<i>Dragoon</i>	Medium	Medium	Medium	Medium-High	Low-Medium	Medium
<i>Scholar</i>	Medium	Medium	Medium	Medium	Low	Medium
<i>Evalina</i>	High	High	Low	Medium-High	Medium	Medium-High
<i>Dragoon-Fairytale</i>	Medium	Medium-High	Medium	Medium	Medium	High

These groups are based on organic growing conditions according to Danish regulation

Seeding density: 350 pl/m², fertiliser: 100 kg NH₄-N in slurry ha⁻¹