

Breeding strategies for diversity



in winter wheat



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CCP

(Composite Cross Population)

versus

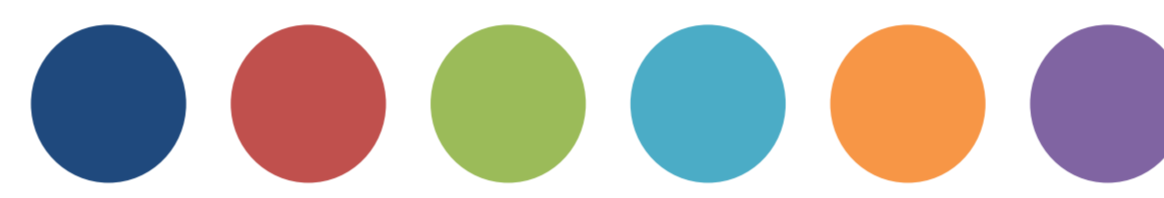
Dynamic Population

(mixture of parents re-sown year after year)

Comparison of **evolution and breeding potential** of 2 breeding strategies (increasing genetic diversity) obtained with the same parents
Experiments take place in France

2012

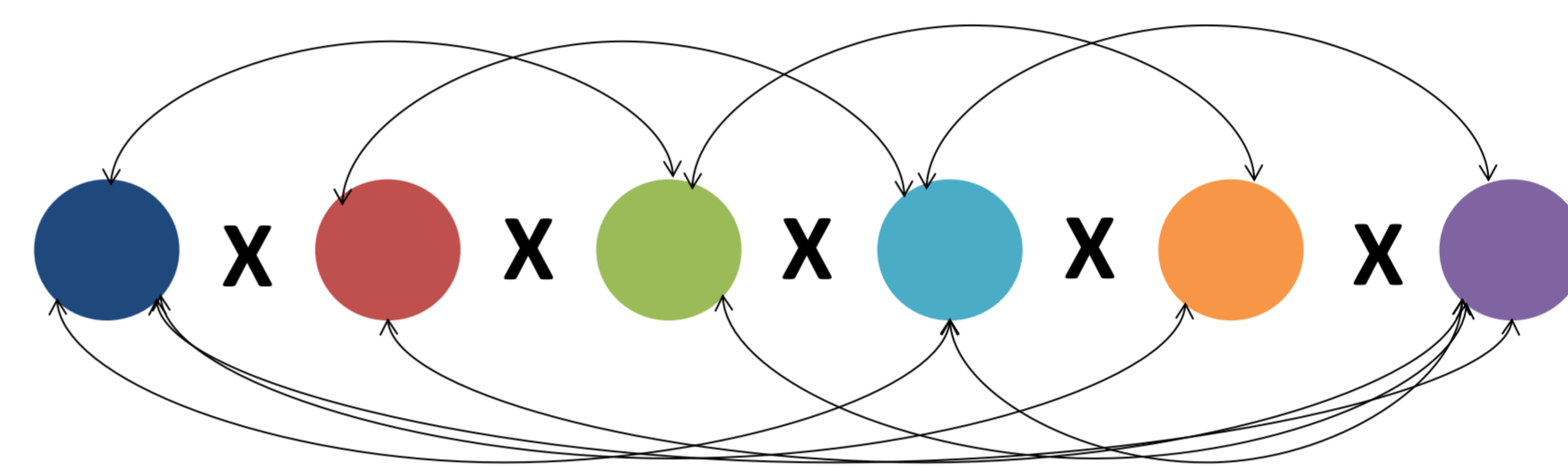
Choice of the parents
(6 populations of winter wheat)



2013

Crosses

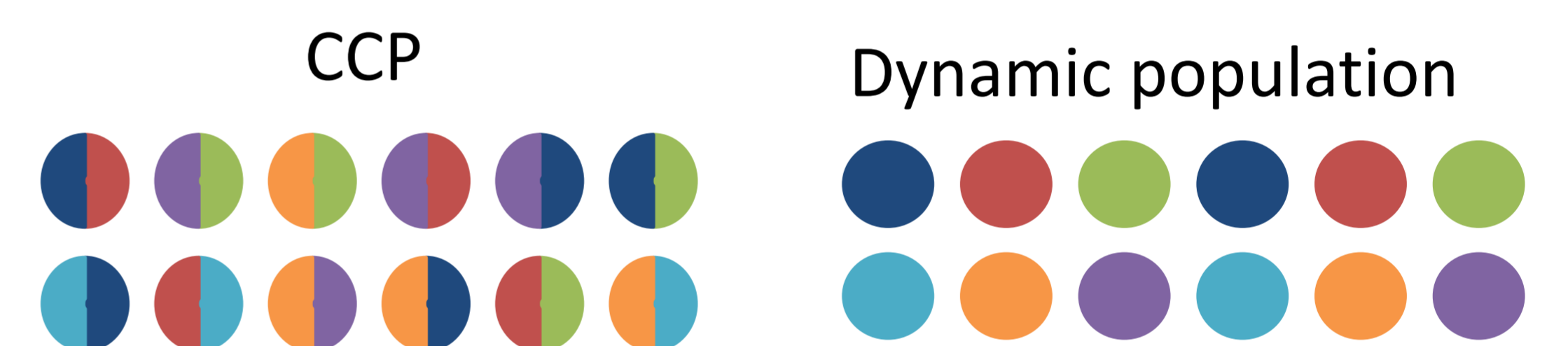
To obtain the CCP



2014

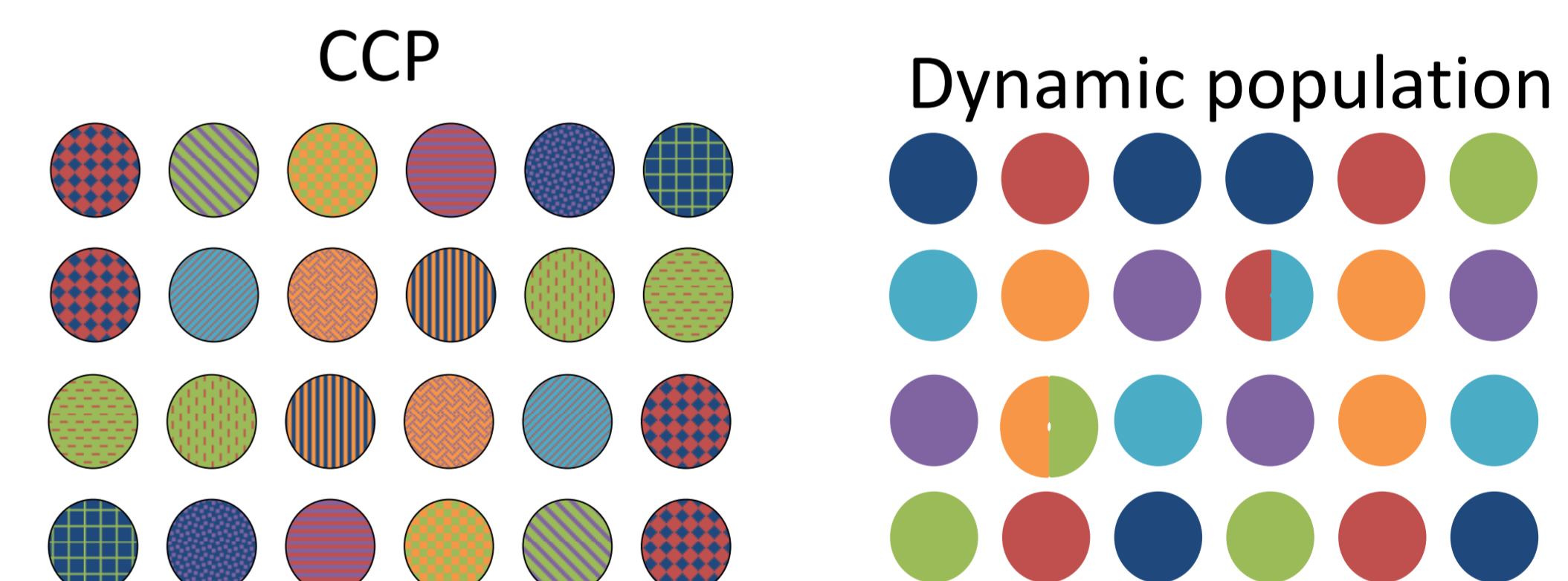
Amplification of the CCP and dynamic mixture

(mixture = equal quantities of each of the 6 parents)



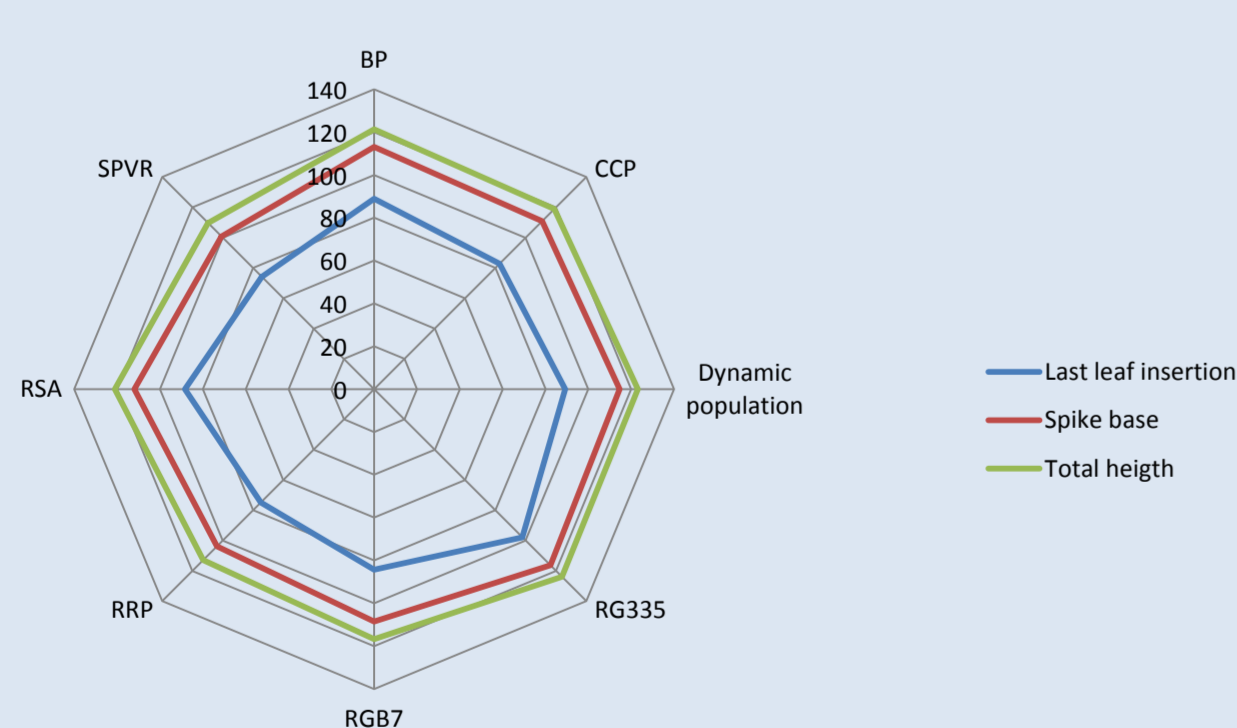
2015

Amplification of the CCP and dynamic mixture

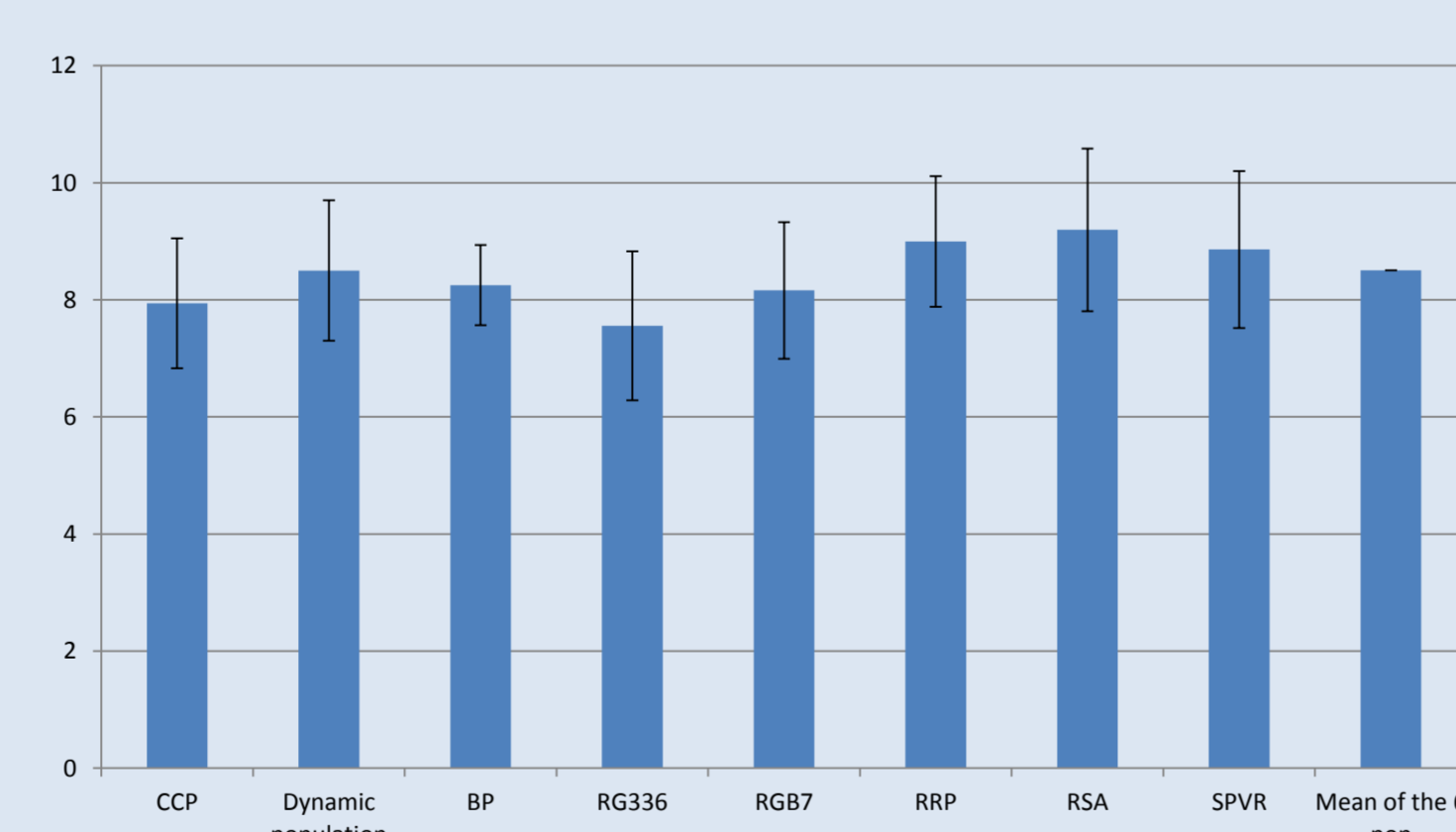


Some results 2015

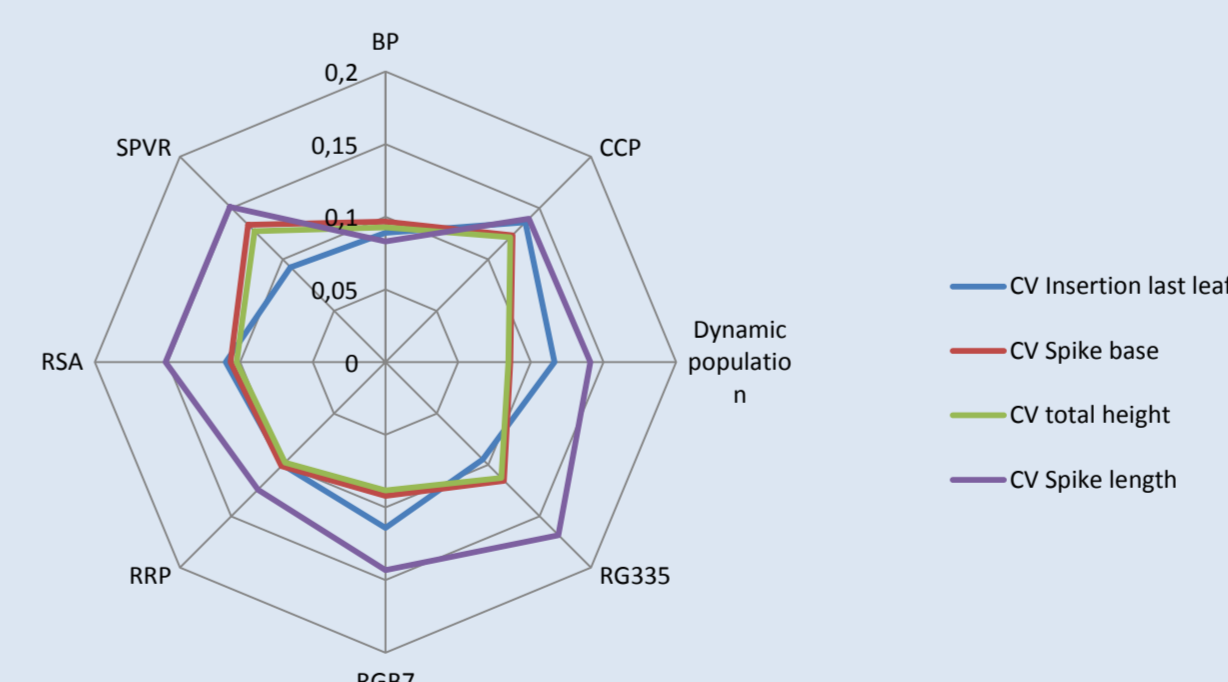
Means of some phenotypic criteria



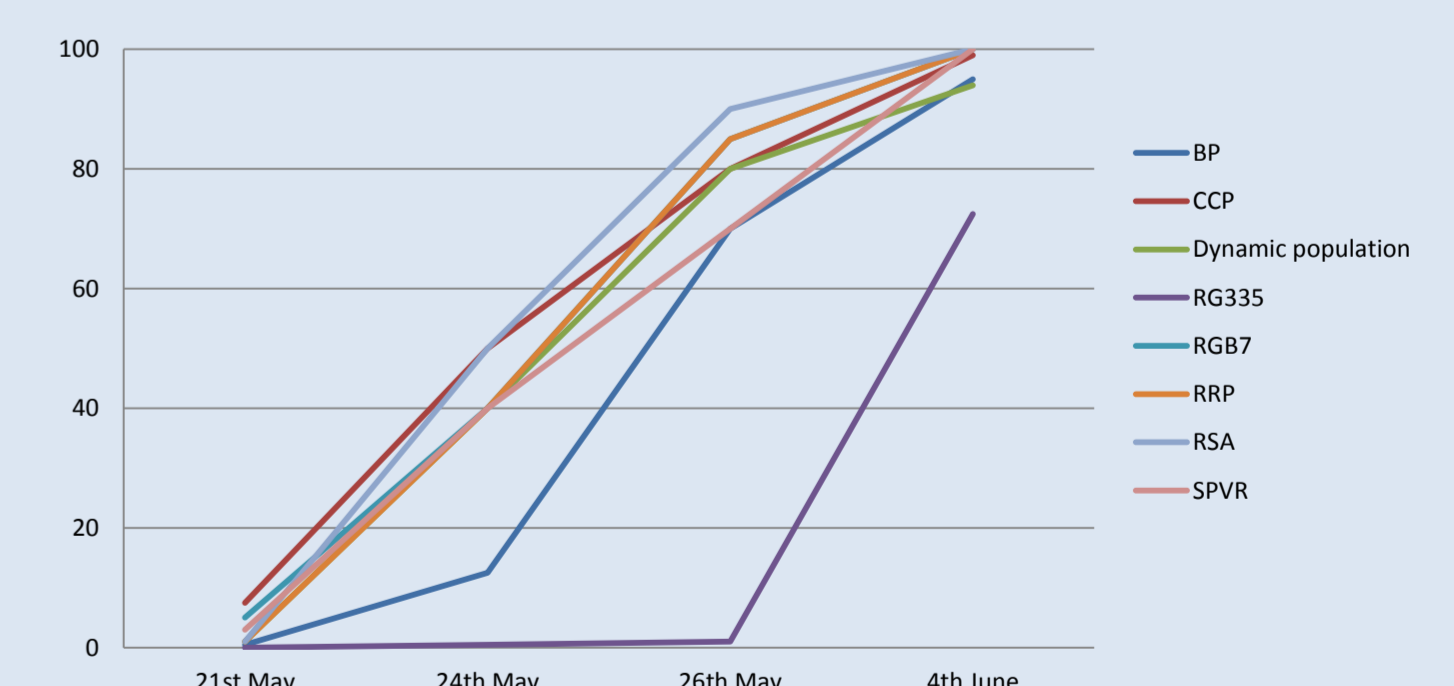
Spike length (cm)



Coefficients of variation for some phenotypic criteria



Heading dynamic



Only specificity of CCP = increased phenotypic variability (highest CV for all criteria)

Following years

Distribution of the CCP and dynamic populations different farmers to study natural evolution and breeding in contrasted conditions