

Dormancy in grass weeds

It is the weather at this time of year that influences the dormancy of black-grass seeds and indications so far are for a low dormancy year. Last year dormancy levels in black-grass were the highest we have ever seen and the proportion of emerging in the autumn was around 20% of the total. There has been much discussion over the value and relevance of dormancy information and this 4 year project funded by HGCA aims to understand the implications of dormancy on emergence patterns into the winter and spring and to allow optimisation of black-grass management within following crops. The results from this project have been very useful and focused attention on the ecological aspects of black-grass development rather than relying on chemical control alone.

Previous results have tied in well with ambient weather conditions during the ripening phase of black-grass. The results below summarise the findings. 2008 results are similar to those in 2002 and 2004 all after poor summers. In all years samples were collected from across the country and we have not identified any consistent regional patterns.

Year	Mean % black-grass seed germinating	Conditions during black-grass seed maturation
2001	62	Hot and dry
2002	22	Cool and damp
2003	57	Hot and dry
2004	28	Cool and damp
2005	59	Warm and damp
2006	53	Hot and dry
2007	23	Average and wet
2008	16	Cold and damp

Spring germination of black-grass is always discussed, more so in a high dormancy year. This year, at Boxworth, we didn't see any emergence in the spring in autumn sown crops where seedbeds were fine and clods absent. We did see late emergence where seedbeds were cloddy and black-grass emerged from broken down clods. Emergence was also seen where seedbeds were disturbed.

Barren and meadow brome are more interesting, it seems that identification of these species is difficult especially between rye, meadow and soft bromes. This year we are asking for a compete head to be sent in with the sample to aid identification. The results from this year will enable us to give some guidance on dormancy levels this autumn.

Can you help?

We are looking for samples of black-grass, Italian rye-grass, barren brome and meadow brome for dormancy testing. If you are interested in becoming involved please contact Dr Sarah Cook at ADAS Boxworth (e-mail sarah.cook@adas.co.uk; Tel. 01954 268215) with your name, address and contact details, we will then send you a sampling pack.

Project information

HGCA have funded a 40-month project to look at dormancy of black-grass, Italian rye-grass, Barren and meadow brome (Project number 3336). This project extends the earlier work to examine annual dormancy prediction of other difficult to control grass species; Italian rye-grass, barren brome and meadow brome. Within the project we intend to understand the factors



affecting dormancy and develop further a predictive system for black-grass at lower annual cost. The work is being lead by Dr Sarah Cook of ADAS.

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