



**CASE STUDIES - ESPC Target 6**

At least 30% of production lands managed consistent with the conservation of plant diversity

**IAPA—Important Arable Plant Areas**  
**Lower Smite Farm — Worcestershire (UK)**

GSPC Target 6 (ESPC target 2.9)

<b>Relevant species or habitats</b>	Arable area. Corn Buttercup ( <i>Ranunculus arvensis</i> ), Mousetail ( <i>Myosurus minimus</i> ), Spreading Hedge-parsley ( <i>Torilis arvensis</i> ) and Small-flowered Buttercup ( <i>Ranunculus parviflorus</i> ).
<b>Project coordinators</b>	Plantlife International
<b>Partner organisations</b>	Farming and Wildlife Advisory Group (FWAG) and Worcestershire Wildlife Trust
<b>Funding mechanisms</b>	Esmee Fairbairn Foundation, Natural England



Blacksmith plot (left)  
 Corn Buttercup in bloom and seed head  
 Blue Pimpernel next to Scarlett Pimpernel

**Description**

Lower Smite Farm was purchased by Worcestershire Wildlife Trust in 2001 with the aim of establishing a farm which maximises opportunities for biodiversity and education whilst being economically viable. The 65 hectare farm is an average size for the county, so the Trust experiences at first hand many of the challenges facing land managers today.

The farm is 63% arable and the rotation incorporates winter wheat, winter beans, spring barley, temporary grass and fallow. The remainder is largely extensive pasture and the farm is in the fourth year of a Countryside Stewardship Scheme (CSS) agreement. Four very rare arable species had been recorded at the site in past surveys: Corn Buttercup (*Ranunculus arvensis*), Mousetail (*Myosurus minimus*), Spreading Hedge-parsley (*Torilis arvensis*) and Small-flowered Buttercup (*Ranunculus parviflorus*).

Previous Plantlife research has shown that soil preparation for arable flora requires the same attention to detail as preparing seedbeds for arable crops. This careful management was implemented at the experimental plots, with particular focus on controlling aggressive weeds prior to cultivations, in particular Common Couch (*Elytrigia repens*), Creeping Thistle (*Cirsium arvense*) and Creeping Buttercup (*Ranunculus repens*).



## CASE STUDIES - ESPC Target 6

### IAPA's - Lower Smite Farm — Worcestershire (UK)

#### Description (II)

Early results from the experimental plots highlighted the importance of completing spring cultivations by late February and not leaving too fine a tilth, as the farm's silty loam soil is prone to capping. Small-flowered Buttercup, a target species, was the only real success in 2005/2006 and this germinated readily across the farm.

In autumn 2006, winter wheat was sown in mid October, three weeks later than some farms prefer, which alleviates the need for autumn herbicides. When these chemicals are applied before the emergence of weeds, farmers may never realise they host rare species as they are killed as soon as they germinate!

By spring 2007, greater success was achieved with at least two target species present in every winter wheat field, not only within experimental plots on the margins but also among the crops. In fact, Spreading Hedge-parsley was only found within the crops and these sites were marked and not treated with fertiliser or sprays.

The farm's success was confirmed when surveys in June 2007 assessed it as being of National Importance for arable flora, using Plantlife's Important Arable Plant Area methodology.

Taking account of project results so far, the rotation on the farm has been adapted to enhance within field biodiversity. Spring barley was replaced with winter beans managed with very low inputs and requiring no artificial fertiliser.

By mid March 2008, Corn Buttercup and Small-flowered Buttercup were recorded within winter bean fields, which previously held no records of these species, and Lapwing and Skylark were also active. One winter wheat field also had Corn Buttercup present throughout. Spray and fertiliser misses here allow seed to set within the field, maintaining seed banks and benefiting other wildlife. Results from the experimental plots allowed the team to adapt the cropping and enhance opportunities for arable flora and other wildlife.

Across the UK, the future for arable flora looks bleaker as the requirement to set-aside land has been removed, winter plantings have increased and the rise in grain prices makes agri-environment schemes less attractive.

Lower Smite Farm hopes, however, to spread the message of what can be achieved. More than 30 local farmers have visited the site and press coverage has helped promote arable flora in Worcestershire. The farm's potential will continue to be developed and plans for 2008 include arable flora identification courses and even a maize maze to bring in more visitors!

Caroline Corsie is the Agriculture Conservation Officer for the Worcestershire Wildlife Trust. Visits to Lower Smite Farm are available and further information can be found in the website or calling on 01905 754919

---

**Date of case study** From 2001

---

**Contacts** Caroline Corsie ([caroline@worcestershirowildlifetrust.org](mailto:caroline@worcestershirowildlifetrust.org))  
Kate Still ([kate.still@plantlife.org.uk](mailto:kate.still@plantlife.org.uk))

---

**Website** [www.worcwildlifetrust.co.uk](http://www.worcwildlifetrust.co.uk)  
[www.plantlife.org.uk](http://www.plantlife.org.uk) and [www.arableplants.org.uk](http://www.arableplants.org.uk)

