

Arable plants: ecology and conservation resource pack

Lecturer notes

Aims of arable plant education resources:

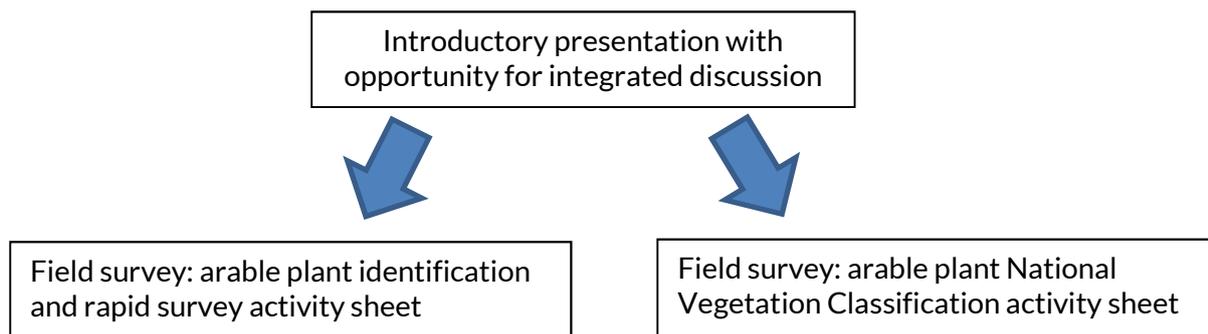
- To raise awareness of arable plants among future land managers.
- To engage future land managers in arable plant conservation and management.
- To develop practical field skills in arable plant identification and survey.

Level and indicative subjects:

Adaptable for Further and Higher Education.

Agriculture; environment; ecology; biology; conservation; geography; countryside.

Ecology and conservation pack structure:



Do I need access to a farm?

Not necessarily. Many arable plants are found on other types of disturbed land, such as road sides, cemeteries, brownfield sites, and wasteland. Look for a site with a suite of annual plants. Activities can be adapted to suit these sites.

How much time is needed?

As much or as little as suits your course. A few slides or species case studies could be integrated into a lecture, up to a full day workshop activity.

When should these activities be done?

Although these activities could be run from early spring, it is best to do them when the plants are in flower or fruit from mid-June to early August before harvest.

Who provides the risk assessment?

This is the responsibility of the staff leading the activity. As the risk assessment is specific to your institution, site and students, it is not provided as part of the pack.

Suggested session plan:

Activity	Lecturer	Student
Introductory presentation	Presents the topics with discussion and Q&A encouraged throughout.	Contributes to discussion, takes notes.
<p>How can the presentation be adapted?</p> <ul style="list-style-type: none"> Adapt the slides to make the presentation more interactive, to shift focus, or to fit time available. Ask students to create slides in advance of the session. Change the title to appeal to different groups or objectives e.g. 'identification and survey'. Change examples of species or crops to suit local agricultural practices and soil types. 		
<p>Field practical survey</p> <p>Rapid survey or NVC</p>	<p>Choose and adapt either the rapid survey or the NVC survey. Risk assess.</p> <p>Explain the fieldwork protocol. Ask students to form groups to plan the fieldwork activity. Monitor and advise during fieldwork.</p>	<p>Work in groups of 3-5 to plan, design, and carry out field survey. Use resources to identify species. Record species data either on paper or electronically.</p>
<p>How can the field activity be adapted?</p> <ul style="list-style-type: none"> The rapid survey is suitable across a range of subjects and can be made simpler or more challenging. National Vegetation Classification is a more complex survey technique, requiring identification skills for all species present. Ideal if you already teach NVC and need an applied activity. Students may use a range of identification resources such as botanical key, field guide, or app depending on which skills they need to develop. Give students more or less autonomy in designing the field survey or with species identification, depending on desired outcomes for the course. Easily adaptable for an assessment activity. 		
Using the survey data	Both the rapid survey and NVC field survey documents contain suggestions for using the survey data.	Report back on findings to demonstrate understanding and skills gained.
<p>How can use of survey data be adapted?</p> <ul style="list-style-type: none"> Activities such as a verbal summary or slide presentation, up to a research project. Decide whether to use the data for a formative or summative activity. Both survey types could be expanded or replicated for professional reporting or academic research projects. Collect monitoring data over seasons/ years with different groups to genuinely inform site management or to develop higher level research projects or dissertations. 		