

# Agricultural land classification (England and Wales)

## Background

The evaluation of land for its agricultural potential in England and Wales<sup>1</sup> is accomplished by application of the Agricultural Land Classification<sup>2</sup> (ALC). Professional competence in Agricultural Land Classification builds upon foundation skills in field soil investigation, description and interpretation (IPSS PCSS Document 1). This system of professional competence is based upon a detailed written procedures document developed by the Farming and Rural Conservation Agency<sup>3</sup>.

## Qualifications

Professional soil scientists with competence in Agricultural Land Classification will have graduated in a relevant science subject. They will also have a number of years of relevant field experience and will have, or be adequately qualified for, membership of a relevant professional body such as the Institute of Professional Soil Scientists.

## Minimum competencies

### Skills and Knowledge:

These are described under a number of subheadings that relate to different tasks. A professionally competent contractor should have the skills and knowledge identified under the **General heading** and **all other headings that are relevant** to the tasks required.

#### General

- 1 A general knowledge and understanding of natural soil development and of world, European and national soil taxonomy
- 2 A detailed knowledge and understanding of the Agricultural Land Classification system relevant to the site and of the classification of land according to the current published Guidelines and other documents<sup>1,2</sup> and the ability to apply it accurately and consistently in the classification of an area of land

<sup>1</sup> Similar systems are employed in Scotland and Northern Ireland

<sup>2</sup> ALC Revised Guidelines and Criteria for the Grading the Quality of Agricultural Land (MAFF, 1988) and Climatological Datasets for ALC (Met. Office, 1989)

<sup>3</sup> A former Executive Agency of the Ministry of Agriculture, Fisheries and Food (now Defra)

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- 3 An awareness and knowledge of existing published and unpublished, paper-based and digital ALC information and sources
- 4 A knowledge of paper and digital topographic, geology and soil maps, mineral assessment reports and memoirs and other technical sources of reference; and of their role in ALC work
- 5 An understanding of map scales and of the Ordnance Survey National Grid
- 6 The ability to investigate, sample, describe and interpret soils in the field in a consistent manner and to professional standards (IPSS PCSS Document 1)
- 7 Knowledge of relevant European and national regulations and policies including national and local land use planning policy and guidance, and soil protection policy
- 8 The ability to effectively communicate soil information in a simple and relevant form to developers, planners and other relevant professionals
- 9 The ability to write accurate, concise reports in clear English and in line with best practice examples of ALC survey that communicate the relevant information to all relevant communicants
- 10 An awareness of the importance of systems of quality assurance and control in all aspects of professional work

## Preparations prior to field survey

- 1 The ability to compile background site physical data (e.g. relief, geology, soils, climate, flood-risk, exposure and grade from published and unpublished sources) and understanding of the limitations of the data obtained
- 2 An understanding of scale and of how different survey sampling densities may impact on the certainty of results obtained. A knowledge of how to tailor survey density appropriately to the requirements of the client, and understanding of the limitations that might impose

- 3 The ability to compute gradients from map contours
- 4 A thorough knowledge of climatic data interpolation procedures (and any available associated bespoke computer software), and the ability to obtain representative site values
- 5 An understanding of soil maps, the concepts of soil associations and soil series and their limitations as a background to ALC grading
- 6 A knowledge of GPS and data logger technology and its uses and limitations for field survey work
- 7 A knowledge and understanding of relevant health and safety legislation requirements for work in the field
- 8 An understanding of basic biosecurity requirements and any animal or plant health restrictions which may be in force

## Field survey for Agricultural Land Classification

- 1 The ability to determine, lay out and work to a relevant sampling strategy
- 2 Competency in the Foundation Skills (field soil investigation, sampling, description and interpretation) as per IPSS PCSS Document 1
- 3 The ability to accurately and consistently apply the ALC system to soil and other data collected during the field survey

## Reporting

- 1 The knowledge and ability to compile an ALC map from background information and data collected during the field survey
- 2 The ability to write an ALC survey report according to an agreed format
- 3 Understanding of the principles of quality assurance and the ability to apply these as required by the client
- 4 The ability to convey the findings of the survey verbally such that they are understood by the client

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