Ref:

Please see Annex AC7 for supporting information, and the “Introduction” for Health and Safety considerations and advice on the use of the guidance.

1. **Is suitable cropping proposed**
The management of aftercare crops is a crucial element of the final stage of reclamation. Whilst good aftercare management cannot compensate for a poor standard of restoration, poor aftercare management can certainly undo some of the positive elements of the restoration process. In extreme circumstances, poor aftercare management could inflict serious and long-term soil structural damage, which in turn could affect the long-term potential (land quality) of the area concerned.

2. **At annual aftercare meetings, the following points need to be addressed/considered**
   
   a. what cultivations have taken place, including dates, ground and weather conditions
   b. has the correct crop been drilled/sown, including variety, seed mix (where applicable) sowing rate, fertiliser analysis/application, use of herbicides etc
   c. what livestock are on/to be introduced to the site, including type, numbers, grazing period (if any)
   d. will a silage/hay crop be taken
   e. will the site have adequate winter crop cover
   f. does the farmer/operator/contractor have access to any specialised machinery
   g. the appropriateness of introducing industrial/pharmaceutical/innovative crops into the aftercare period
   h. will harvest dates compromise other important aftercare steps i.e. drainage
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For more detailed information see:

Cross references:
• AC 1, 8, 9, 10
1. **Is suitable cropping proposed**

This is a crucial element in the overall reclamation of a site and the choice of crop and its subsequent management therefore needs careful consideration. It is important to remember that the objective is to manage and improve the soil structural development and not to grow the most profitable crop. Of course, common sense and practicability will play a considerable part in the choice of aftercare cropping. It is counter-productive to require the growing of particular crops, if they do not fit in with the established rotation or current farm practices, the expertise is not available or specialist equipment is required.

2. **At annual aftercare meetings the following points need to be addressed/considered**

   a. **what cultivations have taken place, including dates, ground and weather conditions**
      
      It is important, for reasons of keeping an accurate record, that this information is made available. If problems occur later on with, for example, crop development, it is the methodical approach of looking through the site records which may identify the cause of the problem. It may be that weather and/or ground conditions at the time of the cultivations was less than satisfactory. Any subsequent crop problems may, therefore, have nothing to do with the standard of quality of the restoration, but are seasonal due to poor weather conditions, which may have affected neighbouring (and undisturbed land) in a similar way.

   b. **has the correct crop been drilled/sown, including variety, seed mix (where applicable) sowing rate, fertiliser analysis/application, use of herbicides etc.**
      
      The detailed annual programme should include agreement on these cropping details. Any deviation from the programme will need to be agreed by the parties involved in the aftercare. Whilst it is important that the aftercare scheme is flexible enough to accommodate changes, it is also important that changes are agreed and properly recorded in the annual statement. With regard to herbicide use and fertiliser applications, advice should only be sought from those persons with appropriate qualifications, i.e. BASIS and FACTS respectively.

   c. **what livestock are on/to be introduced to the site, including type, numbers, grazing period (if any)**
      
      Where grazing livestock are to be introduced, this should only follow the agreement of all the aftercare parties and an assessment of the ground surface and sward. Poaching can be a severe problem on new grassland, especially on restored soil. It is important that stock can be removed quickly (albeit temporarily) if ground conditions deteriorate, or are likely to deteriorate as a result of expected adverse weather conditions. The availability of alternative grazing land, for example on a more mature sward on undisturbed land, may be an important factor when the introduction of grazing animals is being considered. There should be sufficient stock numbers on site, thus avoiding over- or under-grazing,
Aftercare | Cropping

Annex AC7

each of which can create their own specific problems. It may be useful to specify
the grazing period, i.e. from 1 April - 31 October. Where stock are introduced to a
site, it is essential that they are looked after by a competent stock person and that
all the requirements of proper stock husbandry and animal welfare are fully met.

d. will a silage/hay crop be taken
It is important at the outset when planning grassland in the aftercare period to
know how the grass will be utilised. This will, to a large extent, dictate the grass
seed mixture sown. It is also necessary to know whether the agricultural holding
has the facilities/equipment and expertise to make hay or silage. The whole
process from start to finish must be thoroughly thought through if it is to be
successfully implemented.
Where mowers, balers etc. are to be used, it should be remembered that these
machines work very close to the ground and may therefore be damaged by
surface stones and debris. Surface conditions therefore need to be free of these
obstructions.

e. will the site have adequate winter crop cover
In the interests of soil structural development, removal of soil moisture from the
profile etc., it is important to establish crop cover as soon as possible after
restoration. Crop cover is also important in preventing or reducing the risk of
erosion. Even a young sward or the early growth of a cereal crop, can play a
major role in protecting the soil surface. Where the site has a good grass sward
that has perhaps been grazed and/or cut for hay/silage during the year, it is
important that the height of the sward does not exceed 10 - 15cms through the
winter, as this will cause some of the grass to die back and impede the spring
growth. It may be necessary therefore to cut or ‘top’ any excess growth and
remove it from the site.

f. does the farmer/operator/contractor have access to any specialised
machinery
When planning cropping in the aftercare period, it is important to be aware of the
availability or otherwise of specialised equipment and the skills to operate it.
Unforeseen circumstances may dictate the need for this type of machinery and
there will be a financial cost for hiring it etc. Aftercare should generally be a
period of low risk and care should therefore be taken to avoid creating atypical
situations.

g. the appropriateness of introducing industrial/pharmaceutical/innovative
crops into the aftercare period
While innovation, new techniques etc. need always to be encouraged, without
which progress/levels of efficiency etc. may be stifled, the aftercare period is not
necessarily the best time to experiment, at least not on large areas where the
success or failure of a restoration plan might be affected by such techniques.
However, new ideas must be given an opportunity to develop and in this respect it
must be expected that on occasions new ideas will be put forward. For example,
short rotation coppice is being trialled as an aftercare crop on a number of sites.
If new techniques or novel crops are put forward, it is important to establish a proper trial and take the advice and/or work with outside organisations whose own expertise may prove invaluable. It may be that external funds or grants are available. Innovation should not be stifled or discouraged, but needs to be considered carefully, and if implemented, monitored properly so that the maximum benefit and knowledge results.

h. will harvest dates compromise other important aftercare steps, i.e. drainage

Aftercare can be likened to a form of physiotherapy for the restored profile. Any aftercare operations, cropping etc. should therefore be aimed at improving, or at worst, not damaging the replaced soil. In this respect, there may be occasions when the carrying out of essential aftercare operations will have an adverse impact on the growing crop. Such works may include remedial actions (settlement), installation of a drainage system (when ground weather conditions are conducive to the site being trafficked by heavy machinery), subsoiling, cutting of ditches and so on. In some cases therefore, some crop loss and/or damage will have to be accepted. It is thus important that when an aftercare scheme is being drafted, those persons responsible for the implementation of the aftercare works fully understand this position. So often when the land is returned to the farmer for the start of aftercare, the first they become aware of these obligations is at the first aftercare meeting. Good communication (see AC1) should avoid such problems.