Elm Farm Research Centre

ARE ORGANICS FOR YOU ON YOUR NATURE RESERVE?

A DECISION TREE & RELATED INFORMATION

TO HELP YOU DECIDE.

Work completed under contract for English Nature 2004
Revised March 2006

ELM FARM RESEARCH CENTRE

ENGLISH NATURE

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'For organic principles and best practice'

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The research department at Elm Farm Research Centre.

Discussion document as at December 2004. (Document subject to revision).

First revision March 2006

CONTENTS

ARE ORGANIC TECHNIQUES FOR YOU ON YOUR NATURE RESERVE?

ARE ORGANIC TECHNIQUES FOR YOU ON <u>YOUR</u> NATURE RESERVE OR YOUR HIGH VALUE NATURE CONSERVATION SITE?

<u>A 'Decision Tree' with related information to help you decide.</u>

1. Intended audience:

This document has been developed to provide information for the following land managers:

- Managers of nature reserves and sites of high value for nature conservation (including National Nature Reserves [NNRs]) who are considering converting and registering for organic status.
- Managers of nature reserves or sites of high value for nature conservation (including NNRs) who are considering the adoption of some organic management techniques for environmental reasons and benefits.
- Managers of nature reserves and sites of high value for nature conservation (including NNRs) where the adoption of organic techniques may be recognised as having specific benefits for organisational reasons.
- The information may also be of interest to managers of other wildlife sites.

2. Sites of Special Scientific Interest (SSSIs) – Caution.

PLEASE NOTE: In England it is English Nature's policy that organic techniques should not be pursued on sites where they will hinder the recovery or maintenance of 'favourable condition' of SSSI features of interest, or hinder the delivery of biodiversity targets through sustainable management. There will be a need to give notice to English Nature of any proposed SSSI management listed in the sites 'Operations likely to damage' list. In this respect it may be possible to provide consents within an approved 'Site Management Statement'. Any proposal to seek organic registration of an SSSI or NNR is entirely voluntary and decisions to explore the possibilities rest with the personnel responsible for managing the site. However, we hope this will not put you off! In fact we urge you to consider the organic option in support of English Nature's stated goal in its Organic Position Statement to develop more organic NNRs. NNR Managers in the other Countries will need to ascertain respective approaches from their statutory bodies.

3. What is the aim of this document:

We are aware that many National Nature Reserve (NNR) and other reserve managers are considering the pros and cons of adopting organic management techniques on their reserves. This may be complete conversion with the aim of registering the site as organic, or partial adoption where the use of organic techniques may have various or specific environmental or organisational benefits.

This document is the next step in the planned development and progression of advice and solutions to give managers not only the choice but also the 'tools' to make management changes if appropriate to the sites' objectives.

<u>What does it try to do</u>?

It attempts to go into sufficient detail to answer the initial questions that always arise and which are often barriers to progress – these are particularly about the management of unwanted vegetation (i.e. 'weeds') and the management of livestock on the reserves. The

'decision tree' pages present the most common problems experienced by managers along with some possible solutions, which are fleshed out in the tables. There are frequent referrals to some excellent sources of further information and the appendices provide further contacts for those able to give advice. We hope it will encourage managers to further pursue organic options.

What does it not try to do?
It is not a substitute for having discussions with 'organic experts'. It is essential that managers wishing to pursue organic techniques that they arrange to have an OCIS visit (Organic Conversion Information Service) and to link to the further advice that is available.

What next?
Initially it will be sent out to managers of National Nature Reserves for testing and comment. Following feedback and any editing it will then be distributed more widely through the 'organic NNRs e-discussion group'. This document may then be adapted and made available more widely to SSSI managers as may be appropriate. It is envisaged that the 'decision tree' will be periodically reviewed to incorporate further information and advice.

We welcome feedback on the structure and contents of the decision tree and supporting tables and appendices. This should be sent to both English Nature and Elm Farm Research Centre to lois.p@efrc.com Thank you.

4. Supporting initiatives: organic and environmental initiatives in the period 1995-2004.

As background information managers may be interested in the environmental and organic initiatives and developments that have preceded the preparation of this document:

1. 1995: Systematic identification and development of management techniques by the "Forum for the Application of Conservation Techniques" (FACT) and Grazing Animals Project (GAP), offering practical alternatives to the use of environmentally harmful techniques. These two Liaison Groups of 40 conservation organisations has been working on these problems since 1995 and alternatives are now becoming available.
2. 1999. Setting out of philosophical and practical issues in respect of organics in: *"A Discussion Document: the potential for using organic systems to aid the delivery of biodiversity targets in the grazing management of SSSIs, NNRs and other wildlife sites (Part 1 – question and answer guide; Part 2 – rationale and practicalities)"*, W Grayson & J Bacon 1999.
3. 2000 (May). English Nature's Position Statement on Organic Farming, Biodiversity and Healthy Ecosystems. The first public statement by English Nature of support for the principles of organic farming and systems.
4. 2001. Publication of Handbooks by the FACT and GAP Projects e.g:
    - the 'Practical Solutions Handbook (2nd edition) 2001.
    - the GAP's 'Breed Profiles Handbook 2001.

    Now available on the FACT website: www.fact-group.org
    - Soil Association Best Practice Guides:
        1. Organic weed and scrub control on nature conservation sites' 2002.
        2. 'Organic livestock management on nature conservation sites' 2002.
        3. 'Organic farm woodland management' 2003.

        These have been produced by FACT and GAP working with the Soil Association and Elm Farm Research Centre (EFRC). These are essential

reference material for NNR managers considering organics and may provide solutions to problems that previously acted as a bar to organic conversion.

5. 2001. FACT commenced its 'Environmental and sustainable land management' project – to look at ways of 'greening' land management on nature conservation sites.
6. 2001/02 English Nature contracted EFRC to run the 'ORGANIC NNRS e-mail discussion group' for NNR managers. This has been running on a yearly contract and currently has some 200 subscribers. For further information and to join please contact Bill Grayson: billgrayson@farmersweekly.net
7. 2002 (July). The government strategy highlighting the positive benefits on issues such as biodiversity of organic farming that is set out in the Organic Action Plan for details www.defra.gov.uk/farm/organic/actionplan.
8. 2002/04 English Nature successfully registered its woodland NNRs under the United Kingdom Woodland Assurance Scheme (UKWAS). This gave further impetus to consideration of ways of meeting environmental standards. The adoption of organic techniques may offer some assistance.
9. 2003. The FACT/GAP Conference in Lancaster 9 – 11th September 2003 further explored land management within an environmental remit.
10. 2003. Publication of FACT/English Nature Handbooks:
    - 'The Scrub Management Handbook – guidance on the management of scrub on nature conservation sites'. The first Handbook to include specific environmental assessments when considering techniques for management of habitats.
    - 'The Herbicide Handbook – guidance of the use of herbicides on nature conservation sites'. An environmental approach to the use of herbicides, especially to encourage looking at alternatives or minimising their use.

    www.fact-group.org.
11. 2003 (April). Defra established a new Advisory Committee on Organic Food and Farming (replacing UKROFS) to advise Ministers on EC organic standards and their application in the UK, the approval of organic certifying bodies and the ongoing implementation of this Action Plan. The new Advisory Committee has a wider membership than UKROFS did. In particular it includes representatives of the certifying bodies, organic sector bodies, all parts of the food chain and of wider consumer interests. It will liaise as necessary with all other relevant bodies.
12. 2003 (December). English Nature's revised Position Statement on Organic Farming. This includes a commitment to 'achieve organic certification on a greater proportion of English Nature's own National Nature Reserves.
    www.english-nature.org/news/position.asp This is reproduced in Appendix 7.
13. 2004. Defra Action Plan to develop organic food and farming in England – two years on. www.defra.gov.uk/farm/organic/actionplan.
14. 2004. Letting of an English Nature/FACT contract to provide 'environmental best practice' for in-house and contracted land management operations. The adoption of standards for woodland management raised the question of why should we not apply similar rigorous standards to all habitat management work on NNRs. It is clear that organic management techniques have a contribution to make to deliver management those accords with higher environmental standards.
15. 2004 (May). The launch by Defra of its first Soil Action Plan for England. Contains 52 actions. This draws heavily on principles promoted by the organic approach. www.defra.gov.uk/environment/soils.
16. 2004 (June). EU Action Plan for Organic Food and Farming set out as Action 6: The Commission strongly recommends Member States to make full use within their rural development programmes of the instruments available to support organic farming, for example by developing national or regional Action Plans focussing on: stimulating the demand side by using the new quality schemes; actions in order to preserve the benefits for the environment and nature protection on the long term; developing incentives to organic farmers to convert the whole instead of part of the farm; organic farmers having the same possibilities for receiving investment support as non-organic farmers;

developing incentives to producers to facilitate the distribution and marketing by integrating the production chain by (contractual) arrangements between the actors; support to extension services; training and education for all operators in organic farming, covering production, processing and marketing; targeting organic farming as the preferred management option in environmentally sensitive areas (without restricting organic farming to these areas).

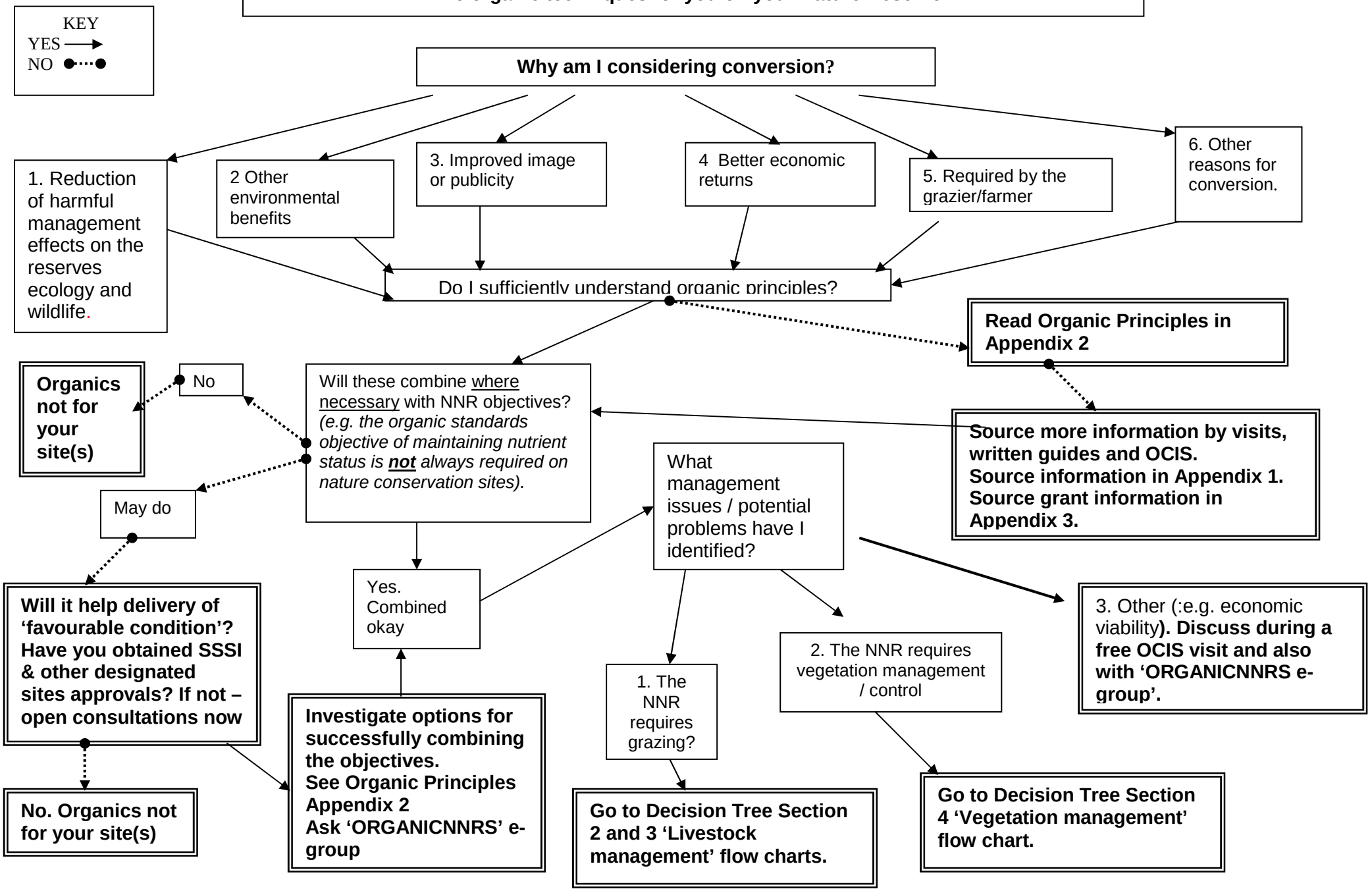
17. 2004-05. Work is underway on a further GAP handbook – the Livestock Husbandry Handbook. This will provide guidance on livestock husbandry issues when grazing wildlife habitats, many of which have issues related to the environment.

5. Acknowledgements:

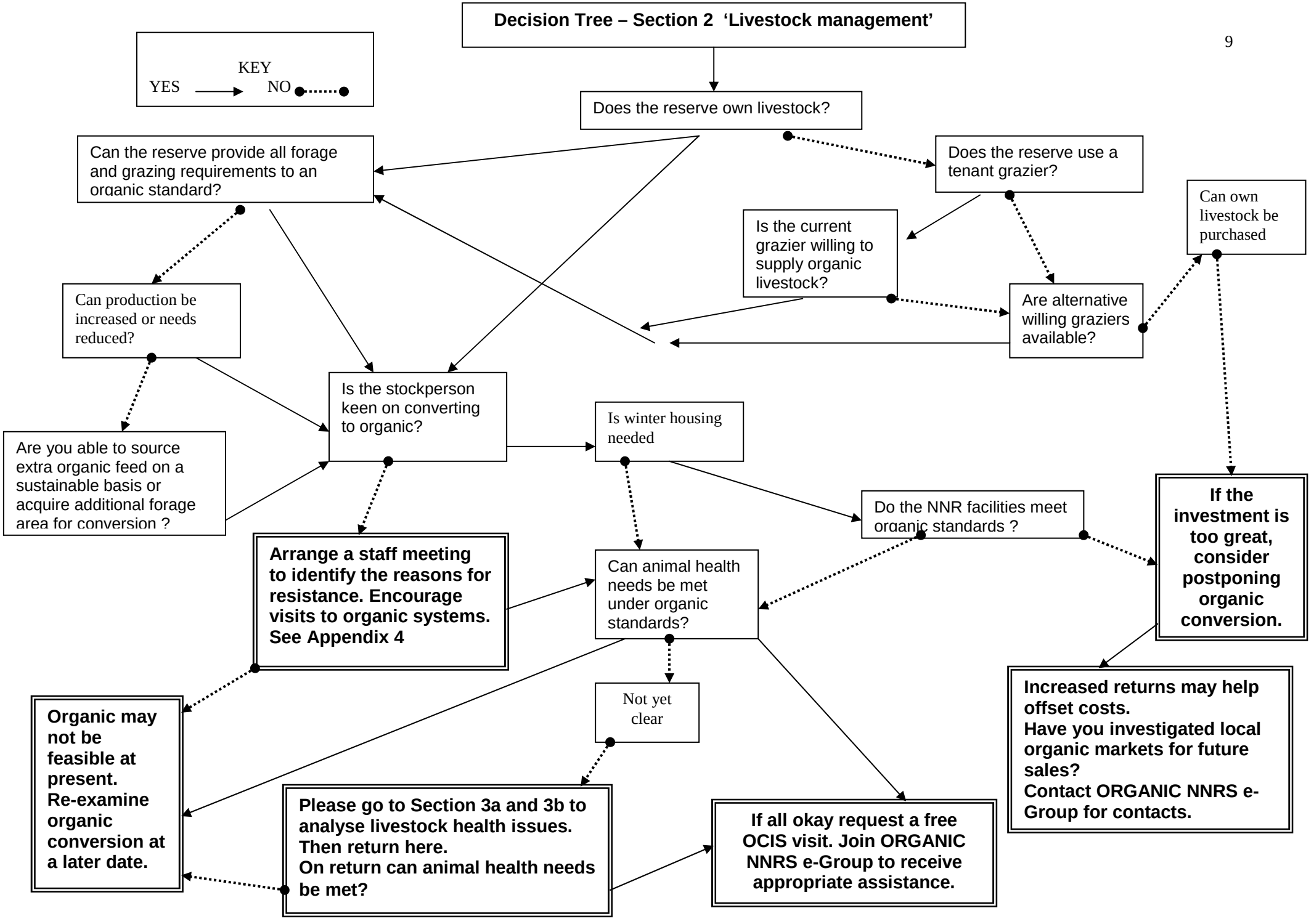
Elm Farm Research Centre and English Nature gratefully acknowledge the following people who have contributed to the production of this document:

- Drafting of the original Discussion Document, April 1999. Bill Grayson and John Bacon as authors, assisted by Ian Alexander (English Nature), Ian Baker (RSPB), Peter Crofts (UKROF United Kingdom register of Organic Food Standards), Julia Fairey (RSPB), Rosemary Fryer (English Nature), Maurice Massey (English Nature), Phil Stocker (Soil Association) and Roger Unwin (MAFF now DEFRA).
- Authors of this Decision Tree Document: Lois Philipps, Jane Uglow and Bill Grayson of EFRC, assisted by John Bacon and Ian Alexander of English Nature. Finally prepared for release by John Bacon, Bill Grayson and Lois Philipps.
- Bill Grayson, moderator of the 'ORGANIC NNRS e-discussion Group' on behalf of EFRC.
- Contributions from all those many NNR managers who have attended and raised issues for discussion at the regional meetings organised as part of the ORGANIC NNRS e-discussion Group activities.

Decision tree – Section 1. 'Opening questions'.
Are organic techniques for you on your Nature Reserve?



Decision Tree – Section 2 'Livestock management'



Yes →
No ●—●
Feedback actions ↔

Decision Tree - Section 3. Organic livestock health issues on nature conservation sites

Section 3a. What are the disease/ conditions/ health hazards to the grazing animals on the site?

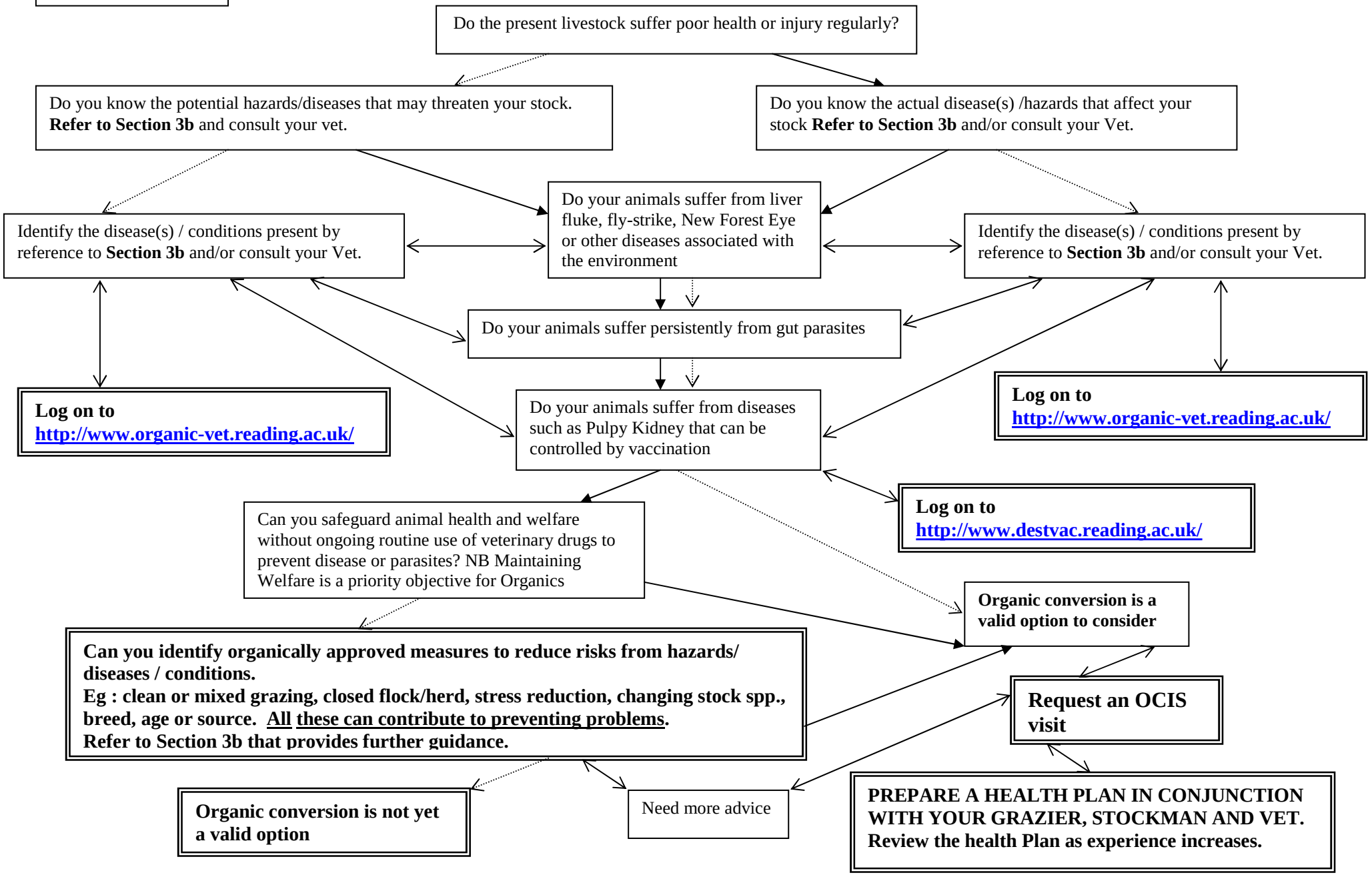


Table - Section 3b. Diseases, conditions and health hazards.

Do you have a current or potential disease problem on the site? The table below helps you consider some of the commoner ones. Then go to Section 3a and complete the Health Plan.

	Examples	Species effected	Causes	Signs & symptoms	Prevention/control	Treatment
External Parasites	Ring worm	Cattle Ponies Sheep Pigs	Skin fungus	Circular powdery bald patches	- Good management, disinfecting buildings and equipment. Good lighting and ventilation Quarantine new stock	- Copper based aerosol can be used as a treatment, - There are herbal treatments that have anti-fungal agents - Vitamin injections of A, D & E can aid recovery.
	Lice	Cattle Ponies Sheep Pigs	Lice can be seen on the animals	- Animals rubbing to gain relief - Scabs on skin surface - Anaemia	Good management eg cleaning bedding, avoiding high stocking densities, good nutrition	- Synthetic pyrethroid treatments are permitted under organic standards (eg deltamethrin) and will provide effective control for several weeks.
	Mange Scab	Cattle Pigs Sheep	- Spread by animal to animal contact in closed environment - More prevalent in long haired species	- Irritation leading to inflamed patches of crusty scabs. - Scabs can lead to Secondary infection	- Good management e.g. disinfecting housing and equipment - Isolating bought in animals is essential to avoid bringing disease on to the site - Maintaining stock-proof boundaries	Avermectin pour-ons may be used eg moxidectin, in cattle, pigs Flumethrin dips or doromectin/moxidectin injections for sheep scab
	Fly strike	Sheep	Attracting flies that can lay eggs around areas of soiled hair, open wounds. Hatched maggots eat into host tissue. Smell attracts more flies	- Animals will rub or bite at affected areas, which become discoloured and weepy with a characteristic pungent smell. - separates from rest of flock collapse and death	Good management; regular and frequent inspections during high risk period (May-Sept) Prevent scour, dag tails Dress and treat any new wounds Avoid dense trees and scrub in high risk season (June-Sept) Use cyromazin pour-ons to prevent attack	Immediate response needed to prevent worsening problems. Clean wound, clip all wet wool around it, remove maggots and eggs, treat with topical insecticide (eg deltamethrin) and antiseptic/antibiotic as necessary

	Examples	Species effected	Causes	Signs & symptoms	Prevention/control	Treatment
Internal parasites	Roundworm	Cattle Sheep Ponies Pigs	Eggs are passed from animal via faeces to pasture	Poor growth, diarrhoea, dehydration anaemia	- Reduce the opportunity for stock to come into contact with parasites - Enable resistance to a limited parasite challenge	- Good grazing management - Herbal remedies & homeopathy - Limited strategic use of wormers (requires specialist advice before use)
	Tapeworm	Sheep	Less common than roundworm	Little evidence that animal has an infestation		Treatment as with for roundworms
	Lungworm	Cattle Sheep Ponies Pigs	Usually site specific & related to wet or damp grasslands	Coughing & wheezing	- Choice of stock for site. - Young animals more susceptible, immunity comes with age	- Immunity can be provide by use of vaccine (A new internet based tool DeSTVAC) is designed to help answer the question 'Do I need to vaccinate or not'. - On sites with known risk anthelmintics can be used under derogation
	Liver fluke	Cattle Sheep Ponies Pigs	- Intermediate host *Limnaea truncatula* - Associated with damp pastures	Fluke needs to be treated prior to animals showing visual symptoms eg oedema of the throat and anaemia	Assess the risk of the site. Consult vet, neighbouring farmers. Faecal samples	Request permission to treat stock on veterinary advice if predicted to be a problem
Other health issues	Summer Mastitis	Cattle Sheep	Bacteria infection occurring during warm summer months caused by flies feeding on teat end	- Animal will stand apart from the group - Move stiffly - The udder will be swollen hot and hard	- Avoid grazing susceptible animals in or close to woodland - Fly control - Creating a barrier between vector and teat (tape or plug) - Avoid autumn calving	- Strip the infected quarter of pus and blood - Affected individuals can be treated with anti-biotics
	Scald and foot rot Digital dermatitis	Sheep Cattle	Bacteria infection spread between pasture and digits	- Animals will hobble - Graze on their knees - Reluctant to walk - Loss of condition caused by animal not grazing	Prompt attention to affected animals to limit spread Regular moves to fresh pasture Regular footbaths with zinc sulphate or copper sulphate solution	formaldehyde solution footbath iodine or topical anti-biotic sprays can be used to treat cases

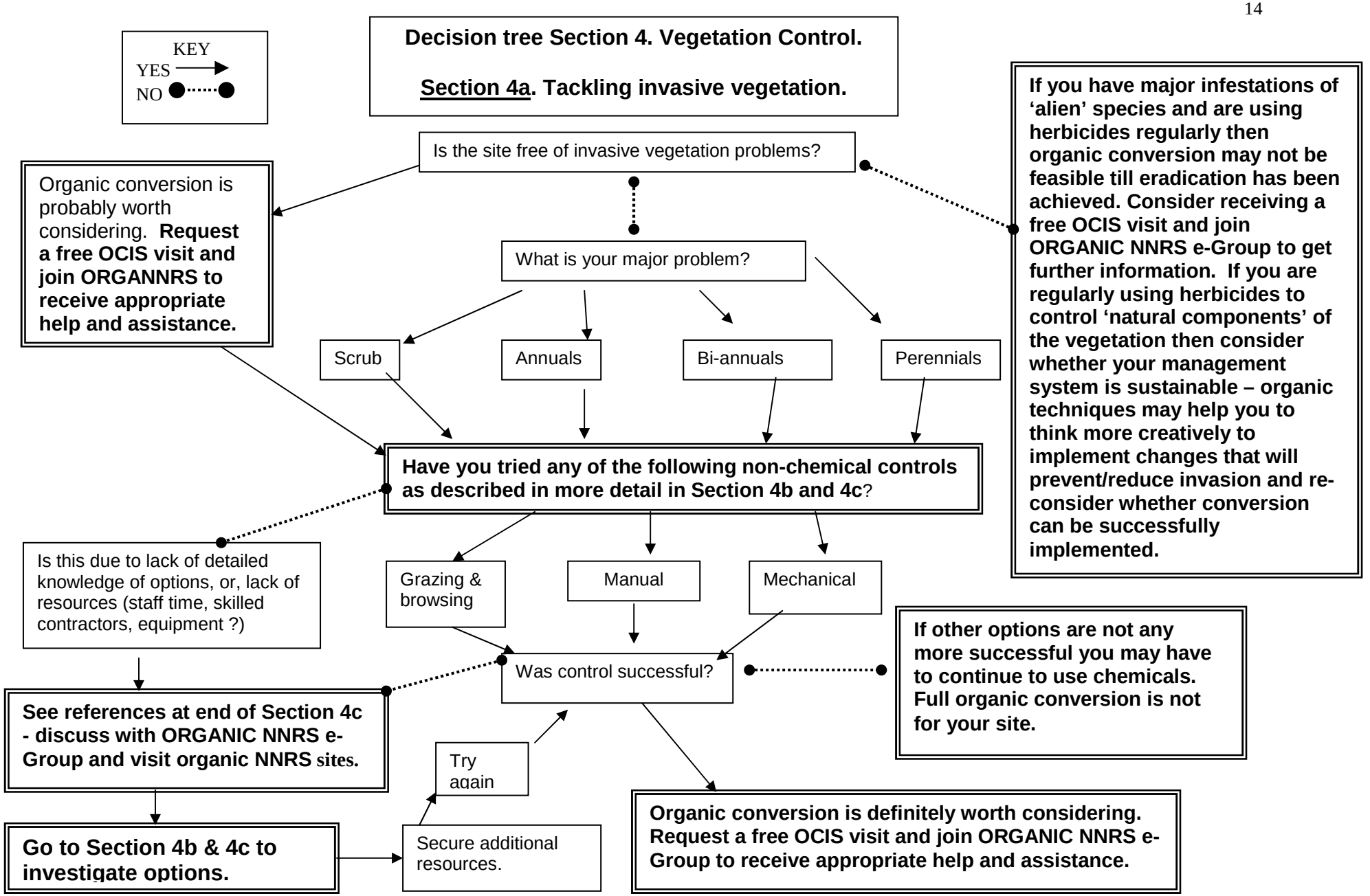
					Some animals have better resistance to foot rot than other so culling persistently lame animals will improve overall flock characteristic	
	New Forest Eye	Cattle Sheep	Bacterial infection of eye	Weeping eye, acutely painful, partly or fully closed, opaque area on cornea, developing to form an abscess that can rupture eyeball	Keep stock away from high risk areas in summer months (damp shady places) Topical fly repellents	Urgent treatment with topical anti-biotics (powder, ointment) may need repeat daily treatment for several days Localised antibiotic injection under eyelid (vet) or systemically into hindquarter.
	Clostridia Infections Eg tetanus, pulpy kidney	Cattle sheep	Range of soil-borne bacteria causing septicaemia and sudden death with varying associated symptoms	Usually affected animals are found dead or close to death. High temperature	Vaccination where a known problem exists on a site. To boost antibodies in colostrum of mother to give passive immunity to offspring for first few weeks. Booster injections at later stages of life.	No reliable treatment of affected animals. Antibiotics are only option where it is diagnosed in time.
	Staggers	Cattle	Magnesium deficiency	Unsteady gait, persistent skin tremor, fluttering eyelids, panting and frothing at the mouth, excitable behaviour in early stages, may be aggressive, finally total collapse and death (can be v quick in acute cases)	Maintain adequate levels of Mg in diet where deficiencies are known to occur. Test levels in soil, pasture and livestock (blood sample) Preventative use of mineral licks, Mg enriched feed supplements or blocks, Boluses and injections may be used where justified by high risks to welfare of animals	Urgent treatment with Magnesium Sulphate solution administered under the skin with special injection equipment. This should always be available in herds that are at risk (naturally low levels of Mg in diet)

For further information on livestock health issues go to:

1. The organic vet website: http://www.organic-vet.reading.ac.uk/ the compendium is divided into five sections. There is a general section on veterinary management of organic livestock that acts as a quick reference point for issues like health planning, prohibited or allowed substances and withdrawal periods after the use of specific medicinal products The health and welfare of sheep, cattle, pigs and poultry are detailed in four separate sections that form the main body of the compendium.

2. The website that gives advice on vaccination. This is DeSTVAC www.destvac.reading.ac.uk

3. The Soil Association Technical Guide. Organic livestock management on nature conservation sites, 2002. www.soilassociation.org


KEY
YES
NO
Decision tree Section 4. Vegetation Control.
Section 4a. Tackling invasive vegetation.
Is the site free of invasive vegetation problems?
If you have major infestations of 'alien' species and are using herbicides regularly then organic conversion may not be feasible till eradication has been achieved. Consider receiving a free OCIS visit and join ORGANIC NNRS e-Group to get further information. If you are regularly using herbicides to control 'natural components' of the vegetation then consider whether your management system is sustainable – organic techniques may help you to think more creatively to implement changes that will prevent/reduce invasion and re-consider whether conversion can be successfully implemented.
Organic conversion is probably worth considering. Request a free OCIS visit and join ORGANNRS to receive appropriate help and assistance.
What is your major problem?
Scrub
Annuals
Bi-annuals
Perennials
Have you tried any of the following non-chemical controls as described in more detail in Section 4b and 4c?
Is this due to lack of detailed knowledge of options, or, lack of resources (staff time, skilled contractors, equipment ?)
Grazing & browsing
Manual
Mechanical
Was control successful?
If other options are not any more successful you may have to continue to use chemicals. Full organic conversion is not for your site.
See references at end of Section 4c - discuss with ORGANIC NNRS e-Group and visit organic NNRS sites.
Try again
Go to Section 4b & 4c to investigate options.
Secure additional resources.
Organic conversion is definitely worth considering. Request a free OCIS visit and join ORGANIC NNRS e-Group to receive appropriate help and assistance.

KEY
YES →
NO ●·····●

Flow Chart – Section 4b Vegetation Control
Techniques for tackling invasive vegetation – Grassland weeds.

Is the problem one of the following native weed species?

Is the problem a dominant grass, shrub or invasive non-native (alien) species?
If so, go to Section 4c

Common Ragwort (Senecio jacobaea)
A bi-ennial but can become perennial if cut.

Control Options

1. Good pasture management
2. Avoid sward damage and bare ground. (Control rabbits to reduce scratching).
3. Hand pulling and levering. (Lazy Dog Tools; Ragfork).
4. Machine pulling.
5. Biological (Cinnabar Moth larva).
6. Cutting (prevents seeding only).

For further detail see references Sect 4c

Rushes (*Juncus spp)*
Perennials.

Control Options

1. Pulling of clumps
2. Clearing saw removal of clumps
3. Topping followed by grazing 2 years in succession (upland option)
4. Topping with aftermath grazing (lowland option)
5. Two cuts during the growing season (lowland option)
6. Topping followed by flooding (lowland option)
7. Lime applications (experimental)?!

For further detail see references Sect 4c

Bracken. (*Pteridium aquilinum)*
Perennial with underground rhizomes.

Control Options

1. Hazel wand switching of young shoots.
2. Manual pulling for small areas
3. Bruising or rolling for large infestations
4. Cutting repeatedly
5. Trampling with cattle or ponies
6. Rooting with pigs (if acceptable).

For further detail see references Sect 4c

Broad Leaved (Rumex obtusifolius) and Curled Docks (R crispus).
Both are perennials with forked taproots.

Control Options

1. Good pasture/grazing management
2. Avoid creation of bare ground, which acts as a seedbed.
3. Pull, lever or dig by hand before seed ripens
4. Repeated cutting (to prevent seeding).

For further detail see references Sect 4c

Creeping Thistle sp (Cirsium arvense)
A perennial with underground rhizomes.

Control Options

1. Good pasture management
2. Avoid creation of bare ground
3. Severing off just below ground level using Lazy Dog Hoe.
4. Lever out using 'thistle spud' or Lazy Dog Tools
5. Manual or mechanical pulling
6. Goats, ponies or cattle will sometimes eat leaves and flower heads

For further detail see references Sect 4c

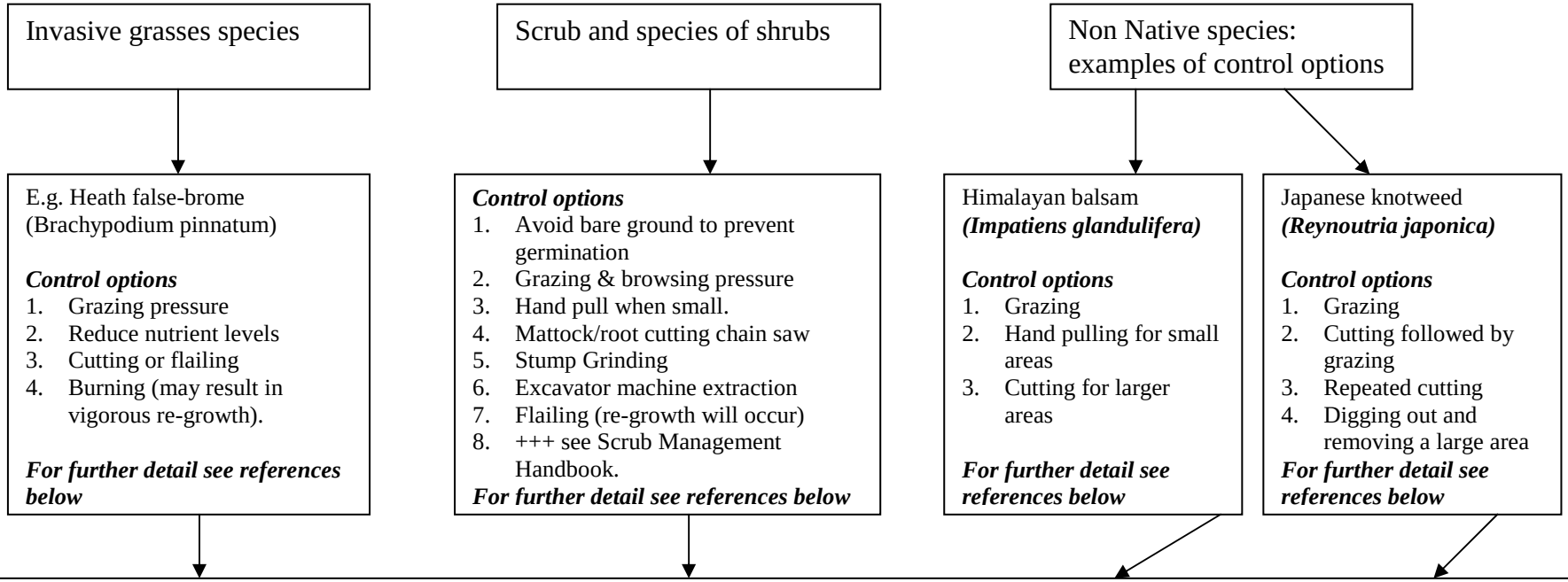
Spear (Cirsium vulgare) and Marsh Thistles (Cirsium palustre)
Both are bi-ennial.

Control Options

1. Good pasture management
2. Avoid creation of bare ground
3. Severing off just below ground level
4. Lever out using 'thistle spud' or Lazy Dog Tools
5. Machine pulling (Eco-puller).
6. Goats, ponies or cattle will sometimes eat leaves and flower heads.

For further detail see references Sect 4c.

Flow Chart – Section 4c Vegetation Control
Techniques for tackling invasive vegetation – Grasses, Scrub and Non-Natives



Specific references for further information on controlling invasive vegetation and species:

Ragwort, Thistles, Docks, Rushes, Bracken:

1. Defra's Code of practice on how to prevent the spread of Ragwort, 2004. PB9840. www.defra.gov.uk.
2. English Nature's Information Note: Towards a Ragwort management strategy, 2003. enquiries@english-nature.org.uk, Tel: 01733 455100.
3. Grazing Animals Project: A guide to animal welfare in nature conservation. enquiries@grazinganimalsproject.info Tel: 01636 670095.
4. English Nature Research Report: Number 44. A summary review of information on the autecology and control of six grassland weed species (Ragworts, Docks, Thistles). enquiries@english-nature.org.uk, Tel: 01733 455100.
5. Soil Association technical Guides: Organic weed and scrub control on nature conservation sites, 2002. www.soilassociation.org. Tel: 0117 914 2400.
6. Conservation Land Management, Vol 1 Nos 1, 2003. Controlling rushes.
7. Rhone Poulenc Agriculture: Bracken Management Handbook – integrated bracken management. Tel: 01227 301125.

Scrub:

The Scrub Management Handbook – guidance on the management of scrub on nature conservation sites, 2003. www.english-nature.org.uk/pubs/handbooks.
The Breed Profiles Handbook – a guide to the selection of livestock breeds for grazing wildlife sites, 2003. english-nature@twoten.press.net. Tel: 0870 1214 177.

Alien species:

Practical Solutions Handbook, 2nd Edition: equipment, techniques and ideas for wildlife management. Section 10. www.fact-group.org. Tel: 0870 1214 177.
Knotweed: http://www.cornwall.gov.uk/environment/knotweed/; and, http://www.cabi-bioscience.org/html/japanese_knotweed_alliance.htm

All species:

Practical Solutions Handbook, 2nd Edition: equipment, techniques and ideas for wildlife management. www.fact-group.org Tel: 0870 1214 177.

REFERENCES for further reading.

"*Organic Farming*" (1990) Lampkin, N. Farming Press, Ipswich (ISBN 0 85236 191 2).

"A Discussion Document: The potential for using organic systems to aid the delivery of biodiversity targets in the grazing management of SSSIs and NNRs and other wildlife sites. Part 1 – question and answer guide; Part 2 – rationale and practicalities", W Grayson & J Bacon 1999, assisted by Ian Alexander, Ian Baker, Peter Crofts, Julia Fairey, Rosemary Fryer, Maurice Massey, Phil Stocker and Roger Unwin. English Nature.

'*Practical Solutions Handbook –equipment, techniques and ideas for wildlife management* (2nd edition).' FACT, English Nature 2001 www.fact-group.org

'The Breed Profiles Handbook : A guide to the selection of livestock breeds for grazing wildlife sites (2nd edition).' GAP, English Nature 2001 www.fact-group.org

"*Organic Weed and Scrub Control on Nature Conservation Sites*" (2002). Soil Association Technical Guide (Tel: 0117 914 2400). Also see www.organicweeds.org.uk

"*Organic Livestock Management on Nature Conservation Sites*" (2002). Soil Association Technical Guide (Tel: 0117 914 2400)

'The Herbicide Handbook – guidance on the use of herbicides on nature conservation sites.' English Nature/FACT. 2003. www.fact-group.org

'The Scrub Management Handbook – guidance on the management of scrub on nature conservation sites.' FACT, English Nature 2003. www.fact-group.org

"*Organic Farm Management Handbook*" (2004) Lampkin N & Measures.M. Available from Elm Farm Research Centre.

ORGANIC NNRS – email Discussion Group. (Contact to join: billgrayson@farmersweekly.net).

APPENDIX 1 Further information on organic farming.

See Defra website http://www.defra.gov.uk/

Are you interested in converting your farm to organic production? Are you interested in finding out more about organic aid payments? Or do you simply want to know whether it's possible to transfer from the Organic Farming or Organic Aid Schemes into Environmental Stewardship?

The market for organic products is generally buoyant and expanding. Retail sales of organic produce are now worth approx. £1.8 billion per year with considerable opportunity for import substitution through increasing home production . All the available evidence suggests that for the foreseeable future the UK organic market will continue to increase and many farmers and growers may be missing a good business opportunity if they do not give serious thought to organic production.

Not only could converting your farm help improve your businesses profitability, but it could also result in improvements in biodiversity, agricultural diversity and employment as well as helping to play a key part in the re-connection of agriculture with the public.

To investigate the business possibilities, farmers and growers in any area of England can contact the Organic Conversion Information Service (OCIS) helpline on 0117 922 7707 for expert advice from an advisor experienced in organic production and marketing who will be able to provide impartial advice relevant to your business. You can also arrange for a free one half day visit and report with a follow up full day visit and expanded report by contacting the helpline. The visits are provided by The Organic Advisory Service, who are based at Elm Farm Research Centre.

Organic farming is not an easy option though and those considering conversion may need training if their enterprise is to succeed. A number of colleges offer courses in organic agriculture and horticulture and details of these can be obtained from the OCIS helpline.

Advice on conversion is also available from the Organic Inspection Bodies and from independent consultants.

What if I already have an existing OFS or OAS agreement?

Existing OFS and OAS agreement holders with fully organic land can gain early entry into the OELS through the schemes OFS to OELS transfer arrangements more details of which can be obtained by contacting the Customer Support Unit at your local RDS office .

OFS or OAS agreement holders with multiple agreements (ie OFS or OAS in conjunction with CSS and/or ESAs) can also transfer into OELS or HLS/OELS once the conversion of their organic land has been completed. For more details please contact the Customer Support Unit at your local RDS office.

What happened to the OFS?

It was replaced by Organic Entry Level Stewardship in March 2005.

What was uptake under the OFS like before it closed to new applications?

Statistics on the Organic Farming Scheme.

Are there any case studies or examples of the OFS?
Successful examples of the OFS in practice can be seen in our case studies pages

OCIS Helpline number - 0117 922 7707
The Organic Advisory Service (EFRC) - 01488 658279

APPENDIX 2: The Principles of Organic Agriculture
From www.ifoam.org

Introduction
The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity. They guide IFOAM's development of positions, programs and standards. Furthermore, they are presented with a vision of their world-wide adoption.

Organic agriculture is based on:

Each principle is articulated through a statement followed by an explanation. The principles are to be used as a whole. They are composed as ethical principles to inspire action.

Principle of health
Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems - healthy soils produce healthy crops that foster the health of animals and people.
Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

Principle of ecology
Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling. Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Principle of fairness
Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities

Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasizes that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

Principle of care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

APPENDIX 3: Grant information

ENGLAND:

(Grants and English Nature: Only Sect 35 I c NNRs are eligible for Environmental Stewardship scheme organic payments. If English Nature is the freeholder, leaseholder or occupier then the land is not eligible).

What aid is available?

The Government values the contribution organic production can make to environmentally sensitive farming. Since 1994 it has provided financial assistance to farmers converting to organic farming under a number of schemes (such as the Organic Farming scheme (OFS)), the latest being the Organic Entry Level Stewardship (OELS) element of the new Environmental Stewardship scheme, which was introduced in March 2005.

Entry Level Stewardship (ELS)

- Open to all farmers and landowners.
- Simple and effective land management.

Organic Entry Level Stewardship (OELS)

- Organic strand of ELS.
- Open to all farmers not receiving Organic Farming Scheme (OFS) aid.

Higher Level Stewardship (HLS)

- Targeted environmental management.
- Capital work plans.

Under OELS, aid worth £60/ha is available to organically registered farmers not in an existing OFS or OAS agreement, in return for their conserving and enhancing the British countryside in an environmentally beneficial way. Conversion aid payments worth £175/ha for improved land and £600/ha for top fruit orchards are also available for those taking new land into conversion under the scheme.

Grant Aid operating in the Devolved Regional Assembles

WALES

http://www.organic.aber.ac.uk/farmers/Conversion.shtml

The Welsh Assembly Government provides financial support to farmers who wish to convert to organic farming through the Organic Farming Scheme for Wales. Payments over the 5-year period amount to £480/ha for land receiving Arable Area Aid payments and permanent crops, £390/ha for other enclosed land and £65/ha for unenclosed land or grazed woodland. The recently announced

Organic Maintenance Payments mean that agreements can be extended for another 5 years, during which payments are £35/ year for enclosed land and £10/ ha for unenclosed land. For more information read our Factsheet, visit the Welsh Assembly Government's website, or call your divisional office of the Department of Environment, Planning and Countryside.

SCOTLAND

http://www.scotland.gov.uk/library5/environment/oas1-02.asp

A SEERAD scheme that aims to encourage the expansion of organic production in Scotland in order to help meet the increasing demand for organically produced food. The scheme forms part of the Scottish Rural Development Programme (SRDP) and is jointly funded by SEERAD and the European Community.

There are two options under the Organic Aid Scheme.

- **Conversion payments option**: payments to help farmers convert to organic farming; and
- **Maintenance payments option**: payments to help existing organic farmers to continue farming organically.

Many of the OAS Scheme rules apply to both options. Where there are differences, these are set out in this booklet. http://www.sac.ac.uk/consultancy/organic/

In applying to the scheme, you are offering to enter into a binding undertaking with SEERAD, which will last for a minimum of five years.

Under the **Conversion payments option** you undertake to convert the whole of a production unit to organic farming during the period of your undertaking. The production unit must be self contained and meet with the requirements of organic standards. If you are already participating in the scheme and want to enter more land (subject to scheme limits) you may do so providing all the remaining land that is not already covered by organic standards is put forward for conversion at this stage and is stated on the approved conversion plan. Financial assistance is available for the preparation of a professionally prepared approved organic conversion plan (see paragraph 50) and for capital works associated with your conversion (see paragraph 51 and Appendix 6 of this document).

Under the **Maintenance payments option** you undertake to maintain your land in an environmentally beneficial way for the period of your undertaking.

In both Conversion and Maintenance options you will be expected to follow the Compendium of UK Organic Standards guidelines designed to ensure the protection of environmental features and semi natural habitats on your farm, croft or common grazing. The standards currently in force are set out in Appendix 4 and you should study these closely before you apply. In addition you are required to follow the Standard of Good Farming Practice as set out in Appendix 3. This applies to the whole of the farm, croft or common grazings entered into the OAS and not just to those areas being farmed organically. If you fail to comply with environmental standards set out in Appendix 4 this will be seen as a breach of Scheme rules and SEERAD may be required to withhold or reduce payments, or recover payments already made, including interest. In addition for Maintenance payments you must also follow the environmental conditions.

NORTHERN IRELAND
http://www.ruralni.gov.uk/bussys/organic/business_management/farming_scheme/fsleaf.htm
Aid payments

Payment will be made annually after the end of the first quarter of each year of your undertaking, subject to a valid annual claim being made in good time. Each application to enter land into the Scheme must be for a minimum of 1 hectare, and there is no maximum limit.

Annual payments (£ per hectare)

	Year 1	Year 2	Year 3	Year 4	Year 5
Arable Area Payments Scheme eligible land and land in Permanent Crops	225	135	50	20	20
Other Improved Land	175	105	40	15	15
Unimproved Grassland	25	10	5	5	5

Additional lump sum payments for each organic unit

Lump sum payments are made in respect of an organic unit. £300 in first year £200 in second year £100 in third year

Advice and information

Advice and information can be obtained from the Organic Development Advisers at Greenmount College, http://www.ruralni.gov.uk/bussys/organic/organic_unit/farmwalk.htm

Tel: (028 9442 6752 or 028 9442 6614 - Livestock) and (028 9442 6765 - Crops and Horticulture). For further comprehensive advice about the Scheme rules contact DARD Environmental Policy Division, Tel: (028 9052 4567).

Approved UK Certification Bodies

From www.defra.gov.uk

Name	Code (see Note 1)	Address	Phone/Fax	Email
Organic Farmers and Growers Ltd	UK2	The Elim Centre Lancaster Road Shrewsbury Shropshire SY1 3LE	Tel: 01743 440512 Fax: 01743 461441	Email: info@organicfarmers.org.uk Website: www.organicfarmers.org.uk
Scottish Organic Producers Association	UK3	Scottish Organic Centre 10th Avenue Royal Highland Centre Ingliston Edinburgh EH28 8NF	**Support & Development:** Tel: 0131 333 0940 Fax: 0131 333 2290 **Certification:** Tel: 0131 335 6606 Fax: 0131 335 6607	Email: sopa@sfqc.co.uk Website: www.sopa.org.uk

Organic Food Federation	UK4	31 Turbine Way Eco Tech Business Park Swaffham Norfolk PE37 7XD	Tel: 01760 720444 Fax: 01760 720790	Email: info@orgfoodfed.com Website: www.orgfoodfed.com
Soil Association Certification Ltd	UK5	Bristol House 40-56 Victoria Street Bristol BS1 6BY	**Farmers and Growers:** Tel:0117 914 2406 **Processors:** Tel: 0117 914 2407 Fax: 0117 925 2504	Email: **Farmers and Growers:** prod.cert@soilassociation.org **Processors:** proc.cert@soilassociation.org Website: www.soilassociation.org
Bio-Dynamic Agricultural Association	UK6	The Painswick Inn Project Gloucester Street Stroud GL5 1QG	Tel: 01453 759501 Fax: 01453 759501	Email: bdaa@biodynamic.freeserve.co.uk
Irish Organic Farmers and Growers Association	UK7	Main Street Newtownforbes Co. Longford Republic of Ireland	Tel: 00 353 506 32563 Fax: 00 353 506 32063	Email: iofga@eircom.ne
Organic Trust Limited	UK9	Vernon House 2 Vernon Avenue Clontarf Dublin 3 Republic of Ireland	Tel: 00 353 185 30271 Fax: 00 353 185 30271	Email:organic@iol.ie
CMi Certification	UK10	Long Hanborough, Oxford OX29 8LH	Tel: 01993 885651 Fax: 01993 885611	Email: enquiries@cmicertification.com
Quality Welsh Food Certification Ltd	UK13	Gorseland, North Road, Aberystwyth, Ceredigion SY23 2WB	Tel: 01970 636688 Fax: 01970 624049	Email: mossj@wfsagri.net
Ascisco Ltd	UK15	Bristol House 40-56 Victoria Street Bristol BS1 6BY	**Farmers and growers**: Tel: 0117 914 2406 **Processors:** Tel: 0117 914 2407 Fax: 0117 925 2504	Email: DPeace@soilassociation.org

Notes: 1 The identifying code of the certifier must be used in the labelling of certified organic products; for example "Organic Certification: UK 1". This does not prevent the use of the name, initials or logo of the certifier being used in addition.

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APPENDIX 4: Organisations running organic farming events

The following organisations run special events throughout the year around the country:
Elm Farm Research Centre (01488 658 698),
http://www.efrc.com/

Organic Farmers & Growers (01743 440 512) http://www.organicfarmers.uk.com/events.html

The Soil Association Producer Services Events (0117 914 2400).
http://www.soilassociation.org/sa/saweb.nsf/MeetingsHome?OpenForm

The Organic Centre ~ Wales Carolyn Wacher, 01970 622248 http://www.organic.aber.ac.uk/events/

In addition a number of regional groups such as Organic South West
http://www.organicsouthwest.org/web/osw/oswweb.nsf/events_prod?OpenForm
Cumbria Organics (01768 891444) or the Yorkshire Organic Centre
http://www.yorkshireorganiccentre.org/

APPENDIX 5: Animal Health Plans

"The Animal Health Plan….. aims at ensuring the development of a pattern of health building and disease control measures appropriate to the particular circumstances of the individual farm and allow for the evolution of a farming system progressively less dependant on allopathic veterinary medicinal products" (UKROFS 2000).
The chosen Certification body will provide information on the standards and offer advice on the construction of an animal health plan. OCIS visit will usually include Animal Health Plans
Health Plan Templates are available from the Organic Advisory Service (01488 657600) costing £20, whilst SAC (01224 711000) has a template for conversion health planning. There are model health plans (eg BCVA herd health plan for the purposes of Farm Assurance)
See also www.organic-vet.reading.ac.uk

APPENDIX 6: Links to other sources of information on Organic Food and Farming

Related organic websites

In this section we have brought together websites that provide further information on organic food and farming.

- Defra organics information: www.defra.gov.uk/farm/organic
  Successful commercial farmers, including organic farmers, are making available all their expertise.
- Elm Farm Research Centre www.efrc.com
  Independent advice and information on organic farming
- EU The official EU site includes two useful reports as PDF downloads:
  www.europa.eu.int/comm/agriculture/qual/organic/facts_en.pdf
  www.europa.eu.int/comm/agriculture/qual/organic/brochure/abio_en.pdf
  Details of the European Action Plan for Organic Food and Farming can be found
  http://www.europa.eu.int/comm/agriculture/qual/organic/plan/index_en.htm.
- Henry Doubleday Research Association http://www.hdra.org.uk/
  Dedicated to researching and promoting organic gardening, farming and food
- IFOAM http://www.ifoam.org/
  The International Federation of Organic Agricultural Movements
- IFST http://www.ifst.org/hottop24.htm
  The Institute of Food Science and Technology's position paper on organic food
- Northern Ireland Organic Website http://www.ruralni.gov.uk/bussys/organic/
- Organic Centre Wales http://www.oraganic.aber.ac.uk
  Provides support to the whole of the organic community in Wales
- Organic Eprints http://orgprints.org/
  Organic Eprints is an international open access archive for papers related to research in organic agriculture.

- OMIaRD http://www.irs.aber.ac.uk/omiard
  The Organic Marketing Initiatives and Rural Development programme for the EU
- Organic Research http://www.organic-research.com/ An international database covering research into organic farming, available on a subscription basis
- The Organic Standard http://www.organicstandard.com/http://www.organicstandard.com/
  An international bulletin covering development in the world of organic standards and certification
- Organic TS http://www.organicts.com/ssues
  Weekly update on organic news from the UK and around the world
- Red Meat Industry http://www.mlc.org.uk/forum/
  The Food Chain Centre and the Red Meat Industry Forum work on value chain analysis and the marketing of red meat.
- Research Institute of Organic Agriculture (FiBL) http://www.fibl.ch/english/index.php
  Swiss institute looking at the nutritional quality of organic food
- Scottish Agricultural College (SAC) http://www.sac.ac.uk/consultancy/organic/
  Information on the SAC's organic activities
- The Organic Material Research Institute http://www.omri.org/
  OMRI is an American not-for-profit organisation which advises on materials and ingredients used in organic production
- The Soil Association http://www.soilassociation.org/
  A charity that provides general information on organic food and organic farming
- University of Newcastle http://www.ncl.ac.uk/tcoa
- The Tesco Centre for Organic Agriculture provides R&D support for the UK organic industry, training for farmers, growers and processors and information for consumers on organic farming and foods
- Food Standards Agency www.foodstandards.gov.uk/ latest news about health and consumer interests in relation to food from the UK's independent safety watchdog

APPENDIX 7: English Nature's Position Statement on Organic Farming, 2003.

Organic farming can make a valuable contribution to biodiversity recovery and English Nature would like to see more farmers taking up this option and farming in an environmentally sensitive way.

Our role

English Nature recognises the interdependence of agriculture and nature conservation and we work closely with farmers operating a variety of different agricultural systems to sustain biodiversity. Our aim is that all farmers should apply high standards of environmental protection and take steps to support the recovery of biodiversity on farmland. Our work is focused on ensuring that public policy, including support payments; advisory services and regulation are all appropriately targeted to this end.

Organic farming and biodiversity outcomes

DEFRA statistics (March 2003) indicate that there are over 250,000 ha of land in England that are being managed organically, 2.8% of the agricultural area. English Nature welcomes an expansion of organic farming because there is reliable evidence that it has evolved into a well-defined modern system of agriculture that is broadly beneficial to the environment and to wildlife. Since the late 1980s there have been over 50 documented and authoritative comparisons of the relative impact of organic and non-organic farming systems on wildlife. These have looked at flora, various groups of invertebrates and at birds and bats. There are some consistent results that have emerged. Where differences have been found between the two systems then overwhelmingly:

- There are higher numbers and greater densities of wildlife on organic farms;
- There is a greater diversity of wildlife on organic farms;
- Those wildlife species that have suffered the greatest declines on farmland in the last 50 years do better under organic farming systems.

Within the context of English farming and on the basis of the available evidence there is a clear case that management of organic farms routinely:

- Reduces the negative external impacts of farming systems;

- Enables the range of wildlife traditionally associated with agricultural land in the locality to thrive, thereby helping in the delivery of Government objectives for farmland wildlife.

There are also examples to demonstrate that organic farming can simultaneously:

- Use agri-environment schemes to contribute to the achievement of relevant Biodiversity Action Plan targets for the re-creation of lost habitat;
- Provide quality food and raw materials in response to market demands;
- Sustain the landscapes and environment on which some other rural businesses and their associated communities depend;
- Provide employment and profit within viable land managing businesses.

We will work with Government and others to support implementation of the *Government Action Plan to Develop Organic Food And Farming in England* published in July 2002. In future we will seek to work constructively with others to:

- Support both the implementation and future development of the Organic Action Plan;
- Identify and disseminate information on best practice in enhancing biodiversity on organic farms;
- Negotiate both nationally and internationally to ensure that organic standards safeguard wildlife interests;
- Monitor and contribute, as appropriate, to further research on the impacts of organic farming on biodiversity;
- Achieve organic certification on a greater proportion of our own National Nature Reserves.

Please also see English Nature's **Position Statements** on:
Environmentally sustainable agriculture and nature conservation.
The use of pesticides and veterinary medicines in agriculture.