



Helping your local Turtle Doves

Conservation Advice from Operation Turtle Dove

The Turtle Dove is a migratory bird that winters in West Africa and returns to Europe in spring to breed. Turtle Dove numbers have declined dramatically in the UK and elsewhere across their European breeding range. However, we now know the key problems Turtle Doves have faced and we know what conservation actions are needed to address these. With guidance and help from Operation Turtle Dove, you can play a part in the recovery of this culturally significant bird.



Credit: Ben Andrew (rspb-images.com)

What do Turtle Doves need?

Turtle Doves require three key breeding season resources:

- 1. Food:** Turtle Doves feed on the ground, almost entirely on seeds of low growing wild plants or spilt crop seeds. They need sparse vegetation and or patches of open ground to be able to find the seeds. The decline of Turtle Doves has been so serious that in addition to growing seed-bearing plants we recommend supplementary feeding, particularly early in the breeding season, when naturally occurring seeds are scarce. This can be done with a specially-designed seed mix to provide an additional food source,
- 2. Nesting habitat:** they nest in dense woody vegetation, particularly tall, dense thorny broadleaved scrub or tall, wide hedgerows.
- 3. Accessible water:** such as a shallow-sided pond.

How can I help?

Turtle Doves are now mainly restricted to eastern and south-eastern England, if you're based in one of these regions you can help.

Protecting and creating places for Turtle Doves to feed, nest and drink is the best way that we can help them. Evidence clearly shows that replacing these lost resources in our countryside is the number one priority action for Turtle Doves in the UK.



Credit: Ben Andrew (rspb-images.com)

Dense hedges and broadleaved thorny scrub provide suitable nesting habitat for Turtle Doves.

Your area might have one or more of the key resources that Turtle Doves need already. Consider what is missing and look to see where gaps can be filled. Can you work with others within your local area to give Turtle Doves places to feed, nest and drink?



Credit: Ben Andrew (rspb-images.com)

Advisors can help provide locally-tailored guidance

With your help, we can make sure that when Turtle Doves return to the UK in spring they are met with the breeding sites, food and water that they need. The following guidance provides information on how key features can be created or maintained.

The Operation Turtle Dove partnership, your local Natural England or RSPB advisor can help to provide locally relevant guidance for all of these measures.

Help Turtle Doves – help wildlife

Providing any of the features listed in this note will benefit other wildlife, including plants, butterflies, bees, mammals and other birds.

This guidance is designed with delivery through English Countryside Stewardship Scheme (CS) in mind. Specific CS options are highlighted in orange, however all of these options can also be delivered outside of CS.

Providing nesting habitat

In the UK, Turtle Doves usually nest in tall, wide mature scrub or hedgerows, especially if they contain standard trees, thorny shrubs and climbers. Dense thorny vegetation provides the birds with a safe place to build their nest, which is often just a small collection of twigs. Dense thorny scrub benefits lots of wildlife – from birds like Nightingales and Bullfinches to butterflies and other invertebrates.

Protect what's there already

- If you already have scrubby areas and hedgerows in your local landscape then you hold a vital resource for Turtle Doves.
- Good Turtle Dove nesting habitat can take a long time to develop from scratch, so it's essential to protect what's there already. Think about how you can help your neighbours to protect hedgerows and scrubby areas in your local landscape.

Management

To provide the dense scrubby structure that's ideal nesting habitat for Turtle Doves, we recommend the following:

- Areas of scrub or dense hedgerow should be, as a minimum, 3m tall and 4m wide. Allow room for hedges to expand if necessary.
- Encourage and keep thorny species such as Bramble, Hawthorn or Blackthorn.
- Encourage and keep native climbing plants such as Dog Rose, Honeysuckle, Clematis (Old Man's Beard) or Ivy.
- In the long-term, scrub will eventually turn into woodland and hedges may turn into mature treelines. To maintain the dense, scrubby structure that Turtle Doves prefer, areas may need to be cut on a long-term rotational basis (15 years+).



Credit: Tony Morris

A patch of scrub used by Turtle Doves

- Avoid management and cutting between March and September (inclusive) as Turtle Doves can still be breeding in August.
- Turtle Doves will also nest in other habitats. This includes Gorse on heathland, orchards, and thicket stage conifers in forestry areas. Be aware that they could be nesting in these areas.

Providing suitable Turtle Dove nesting habitats can be delivered under three CS options. **BE3 Management of Hedgerows** provides for the management of hedgerows; **WD7 Management of Successional Areas and Scrub** and **WD8 Creation of Successional Areas and Scrub** provide more specifically for the management and creation of successional areas of scrub.

Providing water

- Like many seed-eating animals, Turtle Doves need regular access to drinking water, for instance from ponds, artificially-lined pools, semi-permanent puddles and water courses. Accessible water within 300m of suitable nesting habitat will provide Turtle Doves with a place to drink and bathe.
- Water bodies should have at least one gently sloping side that should be kept open to allow them to safely access the water.
- If the local soil structure is not suitable for pond creation, then it is possible to provide other water sources, such as



Credit: Lelia Walker

Pond with gently sloping side suitable for Turtle Doves

a shallow livestock drinking trough. Care must be taken to ensure this is safe for all wildlife and the water in the trough is changed periodically to prevent the build up of parasites.

Options **WN5 or 6** and **WT4 and 5** provide for pond management under CS.

Providing feeding habitat

Turtle Doves feed almost entirely on the ground on the seeds of low-growing annual or perennial plants. They need open ground without tall vegetation to find these seeds. Turtle Doves will find and feed in a wide range of locations that fit these criteria, including roadsides and trackways, coastal dune grasslands, short flower-rich calcareous grassland. But in many places suitable feeding habitat is lacking, therefore we advocate creating more seed-rich habitat. Measures to provide more seed food for Turtle Doves should be located near to suitable nesting habitat (see [Providing nesting habitat](#) section). The following methods can be used to provide Turtle Doves with suitable feeding habitat.

Allow plants to regenerate naturally

- Cultivate an area of land and allow plants to naturally grow. The plants that grow up may provide seeds for Turtle Doves to feed on. This measure may also benefit rare arable plants that might be present in the seed bank and may establish once the soil is cultivated.
- This is particularly useful on lighter soils and is most beneficial for Turtle Doves if cultivated in the autumn as this then allows for plants to regenerate and set seed early the following summer. However if there is space, providing autumn and spring-cultivated plots will provide a variety of seed across the season.
- On heavy soils, where vegetation can become too dense for Turtle Doves to access the seed, a two stage cultivation programme can be used to create suitable vegetation structure. An autumn cultivation followed by weed management (if necessary) with a second early spring cultivation, is more likely to deliver suitable habitat with minimal pernicious weed problems.

- Evidence shows that being patient and retaining your plot in the same location will produce optimum Turtle Dove habitat by gradually reducing nutrient levels. Cutting and removing vegetation at the end of the season can help achieve this.

Annual management (2-stage cultivation method option)

- The dates given here are a guide, please discuss with your local advisor regarding what is appropriate for your site.*
- Cultivate the allocated area between 1 August and 1st November each year in order to produce a flush of autumn growth.
 - Carry out weed management if necessary by 15 February.
 - Carry out a final cultivation to achieve a fine tilth by 15 March. This should produce spring germinating plants such as Knotgrass, Black Bindweed, Chickweed and Fumitory.
 - Do not disturb fallow areas until 31 August.

This management option can be delivered under CS as **ABI 1, cultivated areas for arable plants.**

Plant a bespoke seed mix

- In some circumstances, particularly on heavy soils, natural regeneration may be difficult due to excessive plant growth. We recommend speaking to your local Natural England or RSPB advisor to explore how you can make the natural regeneration option work. However, if this is not possible, a sown seed mix can be used as an alternative.
- Sow a specially designed seed mix that will provide Turtle Doves with the right food plants. This will provide a source of food throughout the breeding season. Work with your local advisor to identify the right mix.
- If you are on a site with rare arable plant interest, then this option won't be suitable. In this case, cultivated plots is the preferred option.

When and where to sow

- Wildflowers grow better on less fertile soil where it is also easier to maintain 30-60% bare ground.
- For autumn establishment create blocks or 6 m-wide (minimum) strips between 1 August and 15 October. Plots should be sown at no more than 6 kg per hectare, and in most cases a much lower rate of 2-3 kg/ha will provide optimal foraging conditions for Turtle Doves. This recommended seed rate is based on recent studies. Rates

may vary with soil type – consult your local advisor. It should be broadcast, not drilled. Once sown, the area should be rolled.

- Where feasible, establishing multiple plots in autumn and spring will likely increase the range and timing of plants available.

Maintenance

- During the first year, you can top the plots to control the growth of problem weeds during establishment. In following summers, between 15 June and 7 July, half of the plot should be lightly cultivated or as a second choice alternative, cut to 5cm, on a rotational basis, i.e. do not manage the same area in successive years. In all cases check timings of any spring and summer management with your local advisor to protect other wildlife interest.
- Cutting and removal or light cultivation between 1 and 31 September may be required to prevent build up of vegetation.
- With successful establishment and good management and patience these plots can last many years. However, in some cases mixes may need to be re-sown every two to three years. If in doubt, contact your local advisor.

This management option can be delivered under CS as a modified version of **ABI, nectar flower mix** in higher tier.

Supplementary feeding

Supplementary feeding can be an important stop gap measure to support the longer term aim of providing forage areas of native wild plants. Research has shown that native plant seeds provide best nutritional value for growing Turtle Dove chicks, however supplementary feeding may provide an additional energy boost, particularly for adult birds; helping them get into breeding condition on return from migration more rapidly and helping them make multiple nesting attempts during the summer. Supplementary feeding trials for Turtle Doves showed that the methods and protocol described here are effective and minimise the risk of spreading disease, Therefore, Operation Turtle Dove recommends that the protocol described here is followed closely.

What supplementary seed to use

- Operation Turtle Dove only recommends feeding with a mix of suitable seed types, not just a single seed, to provide better nutritional variety.
- Suitable seed types that Turtle Doves are known to use include: oil seed rape, feed white millet, feed red millet, canary seed, sunflower hearts or other oil-rich seeds of similar size.
- The exact mix can vary, for example due to annual variation in crop availability and pricing but, as a minimum we recommend that any supplementary seed mix for Turtle Doves should contain at least three seed types, with no more than 10% wheat in any mix, and at least 10% of any other single component.
- This should ensure a minimum nutritional balance and quality. Each feeding site will require at least 75kg of the seed mix each year. This will be enough to enable weekly deployment of the supplementary feed for 12 weeks.

Location and management of feed areas

- Supplementary food should be located within 300m of known Turtle Dove nest sites, or good nesting habitat – eg. tall thick hedges or areas of dense thorny scrub.
- The feeding site must be a bare surface free of vegetation or have vegetation that is short (<15cm) and patchy, including at least 30% (preferably 50-60%) bare areas. Farm tracks and hard-standing are often suitable.
- If the vegetation grows to cover the ground and becomes taller than 15cm before late June, it should be cut back or rotovated.
- If for any reason the original feeding site cannot be maintained throughout the breeding season, eg. because the vegetation becomes too overgrown or there is build up of uneaten seed, then the seed should be moved as short a distance as possible to a location that is suitable.
- Suitable supplementary feeding sites could include stubbles, other fallow or recently established or cultivated areas (including fallow or seed plots), bare or sparsely vegetated tracks, hard standing, very short grass etc. Avoid areas of existing botanical interest.
- An ideal feeding area is a strip 50m long by 5m wide.
- Feeding stations should be in an open location, and not under tree canopy. On farmland they can be located

either in-field or adjacent to field boundaries. Maintaining the supplementary feeding site in the same location through a breeding season is the preferred method.

When, and how much to feed

- Supplementary feeding for Turtle Doves should be carried out from at least the first week of May to the end of July. Starting earlier (mid-April) and continuing later (up to end of August) can also be beneficial and is recommended wherever possible.
- Seed should be put out each week; spun or scattered to spread it thinly and evenly across the whole feeding site, to avoid creating piles or trails of seed. 6kg of seed per week over a 50m x 5m feeding site is the recommended rate.
- This low rate of seed delivery has been tested and found to be effective in minimising disease risk. If you want to provide more seed then the best option is to establish multiple plots and retain the same seed rate, or enlarge the existing plot. Do not add more seed to the existing plot.
- If there is a visible build-up of unused food, stop feeding for at least one week to reduce disease risk. If seed build-up continues, consider using an alternative site.

Other considerations

- Supplementary feeding for Turtle Doves can now be paid for as part of a Countryside Stewardship agreement (SP9 Species Supplement). Talk to your local Operation Turtle Dove or Natural England advisor for more details.
- If you are in an agri-environment scheme such as Countryside Stewardship you may need to seek permission from Natural England if the area selected for the supplementary feed is within an agreement option. Contact your local Natural England Advisor for more information.
- Other seed-eating birds of conservation interest such as Linnet, Tree Sparrow, House Sparrow, Reed Bunting, Corn Bunting and Yellowhammer have been found to be more abundant on fed plots. The presence of other birds should not prevent use by Turtle Doves, and indeed may alert Turtle Doves to the presence of the seed. Trail cameras can be a good way of monitoring what is using your feeding sites.
- If you have any concerns about bird disease in your local area, please contact your local Turtle Dove advisor. Options include moving supplementary feeding areas to a different location or temporarily stopping feeding.