

European Greenfinch *Chloris chloris*

In ancient Greece the Greenfinch was known as *khloros*, because of its green colour.

These species notes specifically refer to European Greenfinches introduced and now naturalized in New Zealand. They aim to assist wildlife rehabilitators in understanding the species' natural history to improve care for birds admitted for rehabilitation.

Disclaimer: These notes are an overview of the basic needs of the species and issues rehabilitators need to consider when holding them as patients. They are not intended as a comprehensive 'how to' guide however, and the following informational sources will help fill in some gaps. Work with your wildlife rehabilitation community and your veterinarian and join organizations promoting professional wildlife rehabilitation.

Information sources:

NZ Birds On-line [Home page | New Zealand Birds Online](#)

[**Handbook of Australian, New Zealand and Antarctic Birds: Vol 7**](#)

- [351 European Greenfinch](#)

Hand-Rearing Birds, 2nd Edition. Edited by Rebecca S. Duer and Laurie Gage. [Hand-Rearing Birds, 2nd Edition – National Wildlife Rehabilitators Association](#)

[Greenfinch Bird Facts | Chloris chloris](#)

RSPCA care notes for finches

BirdCare Aotearoa diet sheets

Species notes:

Adult weight range: 20 – 29g

Natural diet: Mainly seeds, sometimes also fruit, buds and insects. However, they can also be considered a seed crop pest in some regions, especially where rapeseed and radish are grown.

Seeds: Feeds mainly on the seeds of a wide range of introduced NZ plants.

Insects: Beetles and weevils, midges, fly species, true bugs.

Critical time periods to ensure natural history and biological milestones are respected while in rehabilitation.

European Greenfinch	
Incubation - eggs	11 - 15 days
Nest attendance	Female initially then by both parents
Brooding	?
Hatch to fledging	16 - 18 days
Dependency after fledging	up to 21 days

Diet notes

Adult European Greenfinches

The following diet sheets offer information on the components we can use in NZ to ensure we meet the nutritional requirements of this species.

The following notes cover some of the recommended foods.

Cat biscuit – this can be ground to a fine sandy consistency and a small amount offered daily. Do use high quality cat biscuits e.g. Orijen. Look for cat diets that have the first 3 or more ingredients listed as coming from animal sources. Cat biscuit is designed to meet the nutritional needs of carnivores, so we can use this to substitute for any insect components in a diet, it is a great stand-in!

Egg mix – this base food is prepared using hard boiled eggs with the shell included, finely ground up and well-cooked vegetables added. This can be sweet potato, pumpkin, silver beet cooked well and mashed up. Cooked apple can also be added. Blend all this together and blitzed in a food processor. The resulting mix can be frozen in ice-cube trays, or freezer bags. If using freezer bags, do not over fill and freeze so you have a thin layer of food that can easily be broken off and thawed as needed.

Egg shell – sterilize by using the shell from boiled eggs or wash the eggshell, dry and once you have a few saved, place on a tray and bake at 150°C for 20 minutes. Once cool, grind to a very fine powder.

Some fruit is noted as a part of their natural diet, so dextrose can be used with caution if the bird appears to need readily usable energy.

Grit is also noted as ingested by these birds. Try washing beach sand and drying it. Place a small bowl in the housing. Also, a small bowl of ground egg shell may be preferred.

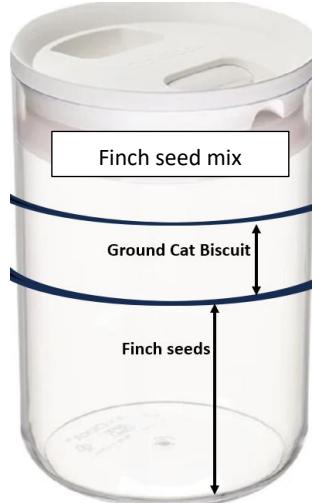
	GREENFINCH
BRITISH FINCH MIX	30
GREENFINCH MIX	50
HEMP, WHOLE OR CRUSHED	5
NIGER	
BLACK SUNFLOWER	
WHITE SUNFLOWER	10
BULLFINCH MIX	
LINSEED	5
PEANUTS IN A FEEDER <i>AVIARY ONLY</i>	YES
SEED IN A FEEDER <i>AVIARY ONLY</i>	YES
BROCCOLI SPRIGS	
DRIED/FRESH BERRIES	
MILLET SPRAY	Always available

RSPCA diet guidelines for Greenfinches in care. The numbers are given as a percentage of the daily diet for foods recommended for the species.

The BirdCare Aotearoa Diet Sheet is available in the WReNNZ members website. The following diet can be used to support adult and fledgling finches.

Seed/Cat biscuit mix for finches.

Premix in an airtight container, $\frac{3}{4}$ finch seed + $\frac{1}{4}$ finely ground cat biscuit. Top this mix with a layer of finely ground, dried egg shell. Mix thoroughly and offer in a small bowl of food in all European Greenfinch habitats. Mix by inverting the container often as items will settle.



Two to three times daily, offer a small bowl with $\frac{1}{2}$ tbsp egg mix and another with $\frac{1}{2}$ tbsp mashed frozen peas.

A millet spray can be hung and rotated daily to present a fresh side to the bird until totally consumed.

If clean wild grass seed heads are available, gather bunches to also hang in the housing.

Small mealworms can also be added to the menu. Just pop them on the seed mix bowl.

Hatching and nestling to fledging care notes

Housing notes

Until fledged, these wee ones must be kept in housing that mimics a nest. A cup nest with a non-slip interior surface is crucial to prevent splay-leg issues. Crocheted nests with crumpled tissues lining it allow the nestlings to develop normal leg placement and the nest can be kept extremely clean. Try using many layers of tissue paper on the fresh cup nest so you can quickly remove one layer at each feeding if it is soiled.

Housing

- Use a cup-shaped nest with a non-slip interior surface to prevent splay-leg.



- Line nests with multiple layers of crumpled tissue paper for hygiene and comfort, replacing soiled layers regularly.
- Crocheted nests work well and can be laundered when soiled.

Nutrition and crop care

The most crucial part of their care is to never stop feeding them until they are truly at an appropriate age. However, the problem is often to know if you are feeding enough or too much as these youngsters will continue to beg even as food overflows out of their beaks! So, weighing daily is your best guide to ensure they gain weight until within the adult range, then maintain that as they continue in your care. The goal is to have a nice wee bulge at the base of their neck. This is their crop. As a guide, the crop with an appropriate meal size should be between $\frac{1}{2}$ and $\frac{2}{3}$ the size of the bird's head! Ensure it is empty before the next feeding. Failure to do so might be your first indication of an issue. Investigate immediately.

Crop care in finches

If empty for the next scheduled feeding, great! If it is not, then you may need address the following issues. You can also skip the next meal, although the faster you address the issue the better the possible outcome.

1. **Temperature.** Are your nestlings warm enough? Until they can thermoregulate, you need to provide warmth and humidity; 35 – 38°C with humidity ranging from 50 to 60%. Once they can thermoregulate, do ensure they are returned to the warmth at night. During the day, they can cope with ambient temperatures in a warm room.
2. **Hydration.** If there are any signs of wrinkly dry looking skin, the nestling maybe dehydrated. If possible, give sterile fluids subcutaneously in the inguinal region (7 to 10% of the bird's body weight once or twice might make a very significant

difference). Warm water drops can help moisten the crop contents and you might need to empty the contents of the crop by 'reverse feeding' to prevent it impacting. Also, the food needs to be well hydrated and even a little runny in younger nestlings.

3. **A crop swab** might be useful if you suspect any organisms growing there. Work with your veterinary team.

Sudden Finch Death Syndrome

The following information is extensively covered by Guthrum Purdin and Rebecca Duerr in Hand-Rearing Birds, 2nd Edition (edited by Rebecca S. Duer and Laurie Gage). "Sudden Finch Death Syndrome" is tough to experience as they really seem to be doing well, until they die! This publication is a great resource if you have access to it. The following notes offer insight into the issues that may be going on.

This probably did not happen suddenly! Slow crop emptying, fluffed appearance, and vomiting should be taken seriously. Do a crop swab. Work with your veterinarian to develop Standard Operating Protocol's to manage the findings of the crop swab and your observations. Using a drug cocktail of an antibiotic, antifungal and antiprotozoal may be indicated. The following notes are based on the experience of wildlife rehabilitators in North America and are valuable to help you and your veterinarian with developing your SOP's. *Remember, all drugs are to be used by or under supervision of your veterinarian.*

- More specifically, anaerobic, Gram-positive bacteria of *Clostridium spp* seem linked to the underlying cause of death, so a daily dose of Metronidazole (50mg/kg daily) has been found effective at reducing issues. If needed, also add Enrofloxacin (25mg/kg daily) if the mortality rate or infection does not show significant improvement.
- However, if flagellates show up on the crop swab, then start with Carnidazole (25mg/kg) once daily for 3 days.
- For yeasts, Nystatin for 7 days should be effective. This must be given into the mouth and not crop tubed.

Supportive care is crucial. Continue with oral or if possible, subcutaneous fluid therapy to ensure a well-hydrated chick. Remember, do not overflow the crop no matter how convinced the chick is that it needs more!

Developmental Milestones and Rehabilitation Guidelines

The following chart shows some known developmental steps to aid in aging nestling admissions. The rehabilitation notes reflect the needed care allied to the biological development of the greenfinch young.

European Greenfinch			
Age related steps	Weight	Developmental steps	Rehabilitation notes
Hatch		Altricial, nidicolous. Eyes closed. Covered with thick, long, greyish-white down	Feed every 10 to 15 minutes, 14 - 16 hours per day. Ensure the food is well-reconstituted and on the runny side with younger birds. Must be kept in brooder - 35 to 38°C, with 50 to 60% humidity until fully feathered. Fed insects only for first days by regurgitation from both parents, so use mashed up mealworms or other insects.
3 - 5 days		Eyes open - but can take days longer	
5 days			Frequent feeding of yellowish paste made of seeds in addition to insects.
6 - 7 days		Pin feathers visible	
8 - 9 days		Pin feathers erupted	Observation: At one nest, 9-day-old nestlings fed every 30 min. Fed on insects, including larvae, and seeds. Keep regular feedings over 12 to 14 hours per day.
9 - 10 days		Feathers growing on back, wings and tail.	
10 - 11 days		Feathers growing on head and prominent on wings. Bill starting to turn yellow.	
13 days		Leave nest but not able to fly	Move out of brooder if your nursery is a warm space. Provide branches to hop on to.
16 - 18 days		Fledging	

37 to 39 days		Continues to beg food from parents.	Monitor weight and encourage self-feeding but also continue to feed often.
Weaning			Do not hurry.
Adult	25 - 31g		

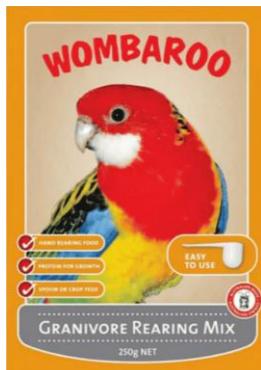
Diet notes for rearing robust European Greenfinch kids

At hatch, these birds are fed insects. They start life as obligate faunivores and MUST eat an insect-based diet at this stage. This can be a diet of insects e.g. chopped up mealworms, crickets, earthworms. To meet the changing dietary needs of the growing youngsters, adding bugs to the Baby Songbird diet in part (or total) should meet the nutritional needs of the nestlings. Feed this mix well constituted and even a little runny. Start to include a greater and greater proportion of the Baby Finch diet daily.

Tube and assist feeding options for young and adult European Greenfinches

Commercial products can be used for rearing young birds, but also help with food for gavage feeding of adults. The following two options are available in New Zealand;

Wombaroo Granivore Rearing Mix



Contact Avian Empire [Avian Empire](http://AvianEmpire.co.nz) for this food.

Kaytee Hand Feeding Formula



Available through [Pet Supplies NZ](#) |
[Shop for Pet Food & Accessories](#) |
[Animates](#) | [Animates Pet Supplies](#)

In-house blend for Finch rearing

Blend finch seeds in a grinder or using a mortar and pestle. This should produce a flour-like product of ground whole seeds. Store this in an air-tight container.

Mix;

1 tbsp ground seed mix

Add;

1 tsp Hills Urgent Care aka ad



Or

1 tsp Royal Canin Recovery



Small sprinkle of egg shell. Blend these with warm water to make a syringe-able smooth paste. This can be stored for 24 hours in the fridge and warmed to ~40°C for feeding.

Release Criteria for European Greenfinches

The following offer some guidelines to consider;

- **Adult birds**
 - **Recovered from injury, illness**
 - Fractures may be well stabilized at 2 weeks, but still may need time to mineralize. Cat bites with soft tissue injuries should be well healed within ~2 weeks. Flight exercise may be important to help the bird regain muscle mass and aerobic fitness.
 - **Territoriality**
 - Release close to where it was found unless there is a major concern for its survival and safety, especially in the breeding season in case a mate is nearby.

- Avoid releasing into a breeding territory if possible.
 - Breeding territories may be present and defended by the male (song) during the nesting stage.
 - Large flocks are frequent outside the breeding season, often mixed with other species of finches.
- **Weather**
 - Generally, avoid releases when extreme weather events are predicted.
 - If possible, a 3-day window of stable weather is useful. However, adults know about weather, so do not delay a release unless severe down pours are predicted.
- **Parasite load**
 - Adult birds are not susceptible to parasite issues unless immune suppressed. Unless you or your vet team have concerns, or the bird has issues, this should not be an issue for release.
- **Waterproofing**
 - **Critical issue.** Feathers MUST be waterproof. An ill or injured bird does not preen effectively, so spritzing with water daily will help the bird maintain good feather condition. Any sign of wetting should be monitored and only once the bird has regained waterproofing, should release be considered.
- **Feather condition**
 - Some feather loss will not hinder release, however, flight check in a safe room before release to verify that any primary, secondary or tail feather loss does not impact the bird's flight. Do not release if large bald patches are still present.
- **Able to forage**
 - Can the bird actually forage? Not just from a bowl! Spread food items around the enclosure to monitor a bird's ability to seek and eat any food items offered. Has the issue that brought the bird into care created a problem that will limit this bird's ability to forage effectively?
- **Timing**
 - Probably best options is a morning release to allow the bird to reorient itself and de-stress after the capture, pre-release exam (including weigh in), transport and first flight.
- **Social grouping**
 - Greenfinches often are found in small groups and breeding territories are small, so there may be a number found in close contact. In the non-breeding season, they often form larger flocks with mixed species. Generally, in non-breeding seasons, it is best to release with other finches.
- **Young birds**
 - **Age**

- Have they reached the age at which they are fully independent? They may be nearly 2 months old – do not hurry to end this supportive care.
- **Imprinting, habituation or adaptive behaviors**
 - Song birds will not imprint on humans. Habituation may be an issue especially in singletons. However, once they are reliably self-feeding, monitor their progress and self-feeding in an outside habitat with regular weigh-ins to ensure they are indeed close to release-ready. Any dependence on humans will be gone rapidly.
- **Recovered from injury, illness**
 - Fractures may be well stabilized at 2 weeks, but still may need time to mineralize. Cat bites with soft tissue injuries should be well healed in ~2 weeks.
- **Soft or hard release**
 - Where possible, soft-releases are best, however, release into a flock of greenfinches is also the best opportunity for these youngsters to integrate into their wild life.
- **Weather**
 - These birds are naïve when it comes to weather extremes. It is crucial they have time to adapt so a window of 2 to 3 days of relatively stable weather is important.
- **Waterproofing**
 - **Critical issue.** Feathers MUST be waterproof. Help the youngsters practice preening behaviours by spraying with water daily to help with the maintaining of good feather condition as they emerge and grow. Any sign of wetting should be monitored, increase spraying or seek advice (WReNNZ) on how to restore waterproofing.
- **Feather condition**
 - With a high-quality diet, the feather condition should be optimal for these young birds. Any major stress bars or damaged feathers should be considered a reason to hold a bird back until it has molted into fully functional feathering.
- **Able to hunt / forage**
 - Can the bird actually forage? Not just from a bowl! Spread food items around the enclosure to monitor a bird's ability to seek and eat any food items offered. Has the issue that brought the bird into care created a problem that will limit this bird's ability to forage effectively?
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species. Generally, in non-breeding seasons, it is best to release with other finches.

- **Food recognition and foraging**

- Where ever possible, bring foods you know are eaten by greenfinches in your region to help develop the skills to feed effectively.

Lynn Miller CWR, PhD

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