## How different treatments work

When I first started to help sick foxes in my garden, local rescue organisations provided me with a variety of mange treatments. They never had a trap available and welcomed the option of me treating the resident fox *in situ*; it saved them valuable resources and time. I am happy to share what I learnt based on information experienced rescuers and co-operative vets shared with me, as well as insights gained from my long-term observations on fox recovery post-treatment. Note: I am a naturalist specialising in foxes and study them on a daily basis. However I have no veterinary training. (Most rescuers and in the UK lack such training and learned through hands-on experience. In the UK the terms "wildlife rescue" or "rescuer" are not protected. So anybody can call themself a "fox rescuer".) The last 7 years of helping mangy foxes, this is what I learnt about the efficiency of mange treatments:

Based on my first-hand experiences of saving foxes from mange, the **best** treatment for mange that I can highly recommend is **Bravecto for dogs**. For an adult fox the dosage would be the same as for a small dog 4-10 kilos. **Bravecto** is very efficient as it cures the mange with justone dosage, is safe for pregnant and lactating canines and stays in the bloodstream for 3 months - keeping the fox mange-free for a long time. **Bravecto** not only targets the mites that cause mange but also kills fleas and ticks, so you can imagine what a relief it is for formerly parasite-ridden foxes that have been treated with it to be mite, flea and tick-free. The downside is that **Bravecto** is the most expensive treatment, costing around £35 for one dosage but I think for three months of cover, it is worth every penny. I have seen foxes that were completely furless and extremely underweight bounce back to full health within a month of being treated with just one dosage of Bravecto and lots of **good quality food**.

All the foxes in the pictures accompanying this post have been treated by Bravecto and the "after" photo was usually taken a month after treatment in the wild.

Nexguard is another excellent mange treatment and has the advantage that it also de-worms the animal. For most foxes you would give a dosage for a dog up to 7.5 kilos. If you are treating a very big male fox a higher dosage may need to be used (7.5-15 kilos) but this would be exceptionally rare. One dosage may be sufficient to cure mange, however a follow-up treatment after a month is usually advised. But sometimes it may not possible to administer this second treatment. Fox movements can be erratic, especially during mating season and sometimes foxes go off the radar once they start to feel better.

Some rescuers use liquid **Ivermectin** injected into food such as a piece of raw chicken. The problem with Ivermectin is that it stays in the bloodstream for only a short while, and that means that due to the breeding cycle of mites **you must give THREE dosages once a week within a 3 week period** to make sure live mites as well as their eggs are all killed and the mange is cured. It can be very tricky to give three treatments on exact dates to a wild animal, especially during mating season when fox movements are erratic. Ivermectin is cheap but in my opinion is not the most

efficient mange treatment as it doesn't offer long-term protection. However it does also de-worm the animal and if no other mange treatment is available, it is better than nothing. Note: there is a HUGE variety of Ivermectin in liquid, paste or pill form on the market. It comes in various different concentrations and some is meant for injection, some for oral treatment, and some for external drenching. These products have been manufactured for animals such as cows and sheep. Not all of these products are suitable for treating a fox and it is crucial to get the type of Ivermectin as well as the concentration right to work out the correct dosage for a fox. **Liquid** <a href="Ivermectin">Ivermectin</a> at the concentration of 1% is used by many rescuers and given in multiple very small dosages of 0.33 ml once a week for 3 weeks. This tiny amount can easily be administered via food.

Some rescue organisations send Ivermectin paste, pills or liquid out unmarked. This is risky, as Ivermectin must be kept out of reach from children and pets.

"Spot-on" treatments like Selamectin: Some rescuers trap and then apply a "spot-on" treatment to the fox before quickly re-releasing, usually by applying the liquid on the neck. Note: these kind of external treatments are NOT meant to be given orally. They contain an off-putting scent that would stop a pet from licking it off and this strong odour and bitter taste would stop a fox from eating the treated food. Most importantly, the ingredients in the spot-on treatment are very harsh chemicals that are not meant to be ingested orally and could harm a fox if eaten.

I am aware that there are multiple homeopathic remedies available online which allegedly cure mange. However none of these have worked for the foxes under my care, nor for any of the foxes that many concerned fox lovers emailed me about. They had given the fox the homeopathic remedy as advised, only for the fox to progressively deteriorate, losing more and more fur and weight. I have spoken to multiple vets, rescuers and a dermatologist about this and they were in agreement that 'to kill the mites that cause the mange, you need to use anti-parasite medication'. The dermatologist said: 'well you can't kill head lice with a nice herbal shampoo and the same is true when it comes to getting rid of mites burrowed under the skin'. The vet said he considers the homeopathic remedy for mange as 'holy water' and also made a point of saying that 'homeopathic remedies can have a supportive function but this only builds over many weeks, and when dealing with mange time is of essence and you have to kill the parasites quickly'. The quicker mange can be treated, the greater the chances are that the sick fox will make a full recovery. For other purposes, homeopathic meds can work really well-I have had good results using Arnica for treating sprains in foxes.

## Top Tips on How to Treat a Fox in the Wild

I cannot reiterate enough that it is not safe to leave medicated food outside unattended. You have no control over which animal will take the treatment that could cause harm to other wildlife or a pet. If you have been able to get hold of a

treatment, you MUST put in the hours needed to target-feed and act responsibly. The wildlife rescue or vet supplying the treatment should have also advised you on this.

Even though **Bravecto** and **Nexguard** are sold as a "chew" (at the size of an aspirin pill), a fox would not just eat the chew by itself. Many rescue organisations advise giving the treatment inside a "jam sandwich". In my experience this is not the best option. Given as a whole, the pill would fall out and chopped up, there is a risk that only a partial dosage would be taken. Depending on the fox and their food preferences, you caneither administer the chew/pill hidden inside a bite-sized raw mincemeat ball or a hollowed-out and later sealed chunk of mild cheddar cheese. The cheese cube can be thrown without breaking which is useful when treating an animal that does not come close. I have used this method with shy foxes, throwing them the medicated cheese cube whist observing them from inside a hide or a darkened room. The core of a jam-filled doughnut works well for foxes that have a sweet tooth. Test these carrier food options first to figure out which option the fox prefers and eats on the spot. When treating a fox, only give a medicated bite-sized morsel to make sure the full treatment is taken, rather than carried off to be cached. You can give a full feed afterwards.

It will be challenging to treat a fox parent during cubbing season, as the parents usually carry all solid food back to the den to feed the cubs. When dealing with this scenario, you could crumble the chew, add a tiny bit of hot water to make a paste and stir this into a raw scrambled egg that the fox cannot carry off and will lick up and ingest. This method worked for me when treating a vixen that gave ALL other food to her cubs in the den.

When treating a fox in the wild, the ideal scenario is to help a fox that trusts you enough to eat food near you, under your supervision. If the fox is too shy to come close and does not trust you, you need to observe them from a darkened room or a hide, throwing the food to them from a distance when they appear. I usually do this in the moment the fox has turned their back to me so I don't spook them. It also helps when there is a noise such as a car going by or a gust of wind as these sounds will mask the sound of you throwing the medicated food.

If a fox caches the treated morsel, you will have to un-cache it and try again another time, storing the treated food in the fridge.

Please ask someone experienced in helping foxes in the wild on how best to treat. If there is a local rescue, you should also inform them that an animal has been treated and provide them with a picture to avoid the same animal being treated twice. We provide our local rescue with pictures and a bio of foxes on our radar, so they can add this info to their spreadsheet and potentially inform other people not to feed a fox (when we are trying to target-feed a sick fox) and advise them that the fox is already being treated.

## **Useful tools**

My most trusted tool to monitor and support foxes is a trail-camera. Using a motion-activated infrared trail-camera can help you to log fox visiting times and narrow down a time frame when to feed and potentially treat or trap a fox. The footage featuring the sick fox will be a useful tool for you as well as a rescuer and/or vet to assess the fox's condition and progress. You will also be able to determine how many other foxes visit and what condition they are in. A trail camera or outdoor security camera like **Blink** is a big investment and not necessary to treat a mangy fox but it is a fantastic tool, especially if you are interested in studying and supporting the foxes that visit your garden or drive long-term.

Another useful tool is a permanent outside light, like a site light used to illuminate building sites after dark. These are now available with low energy halogen bulbs. My garden is always lit after dark and this allows me to see the night-time visitors and assist a fox in need. If you have no outside light, you will be restricted to target feeding and potentially treating a fox during daylight hours when foxes usually lay low and are rarely visible.

I hope you find this in-depth information useful. If you have any questions, please ask! Feel free to email us: <a href="mailto:dora@foxguardians.co.uk">dora@foxguardians.co.uk</a>