

What about Hippos?

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We have written in past EDN articles about many different garden pests, ranging from sneaky monkeys to magnificent elephants and even to hungry iguanas. Well, what about hippopotamuses? Yes, you heard right, HIPPOS! Believe it or not, on the banks of Lake Victoria and Lake Malawi and at river edges in Eastern and Central Africa, hippos are a major garden pest. Can you imagine how many plump cabbages or juicy red tomatoes a hippo can eat in one single night? How do we stop these hungry hippos? We have some techniques to share, but first you need to know a bit about this opponent.

Hippos stay near water, but at night they may travel some distance in search of vegetation, often feeding on cultivated crops. An adult hippo can eat up to one hundred fifty pounds of vegetation a day! WOW!

Hippopotamuses kill more people in Africa than any other animal. Male hippos are known to be very territorial. When a hippo attacks a person in the water, it will typically grab the person with its large teeth and take him under until he drowns. However, most hippo attacks occur on land. It's tempting to think that these large animals are slow and clumsy, but in fact they are quick and will easily trample a person if he gets too close. Be very careful when trying any type of control method that requires you to be near to a hippo.



Figure 1: A strand of wire, placed around a garden about 20 cm above the ground, deterred hippos.

I worked for several years in Malawi, Africa, with a community agriculture project near a place called Monkey Bay on Lake Malawi. One common problem

people experienced was hippos eating garden crops at night. During this time I met June Walker of the Permaculture Network, who shared with me one possible hippo solution. We noticed that hippos would go through just about any fence or

deterrent. However, one strand of firmly fixed wire around the garden, placed about 20 cm above the ground, did in fact deter hippos (Figure 1). We have no scientific explanation of this, other than that it seemed to confuse the hippos and they would move on to another garden. This appeared to work as long as there were other gardens to feed on. When the dry season came and the enclosed garden was the only green vegetation, the hippos found their way through the wire. The method only worked as long as there were other things around for the hippos to eat.

I tried this method again in Mozambique along the Zambezi River at a demonstration farm. I decided to use the wire again, but added something that would possibly throw off the hippos' scent of our vegetables. Since hippos are vegetarian, we strung a few small fish on the wire around the garden. We observed that the hippos would come to the garden, smell the fish and leave. We assume that the smell of the fish masked the scent of the vegetables and discouraged the hippos. I know that the smell discouraged me from going to the garden, especially after the fish had been on the wire for a week! From then on we used this method, at least around small gardens. We collected fish waste after meals, since we didn't want to waste good fish to use as a hippo deterrent.

For a long-term solution suited for larger areas, we planted giant sisal (*Agave sisalana*) every meter. Even though hippos have a fairly thick hide, their eyes are unprotected from the thorny interlocking sisal leaves. Though it can take up to three years depending on rainfall to establish a good sisal stand, this solution proved best for our situation.

Paul Noren, a recent visitor at ECHO who works in the Congo, used ironwood posts placed every 70 cm as a control method. These posts should be at least 40 cm in diameter and must be dug into the ground at least 60 cm. This method works well where wood is not scarce. Paul also saw trenches dug around the garden that are one meter wide and one meter deep. It appears that hippos are not inclined to jump that far.

Lance Edwards, a former staff member at ECHO who grew up in Zimbabwe, told of a very interesting technique for deterring hippos. His father made a simple device that triggered a shotgun shell to explode inside a steel pipe pointed into the ground. When a marauding hippo came after his crops and triggered the trip wire, this would set off the shell with a loud bang and scare off the hippos.

If you have any experience with keeping hippos and other large animals away from crops, we would like to hear about your successes so that we can share them with our network. If you decide to try any of the ideas mentioned here, or if you have a tested hippo solution, let us hear from you!