

Well-planned barns and pastures, and innovative use of high- and low-tech gadgets can make life on the farm much easier. If you have any helpful "husbandry hints," *Alpacas Magazine* would love to hear from you.

■ Microchip Identification Systems for Alpacas

Permanent identification of alpacas is increasing in importance. Identifying a specific alpaca is often required for entering shows, interstate transportation, and various types of testing, such as BVD testing.

Using microchips for identifying a specific alpaca is not the only method, but is becoming a preferred method of identification. According to a recent survey by the Camelid Working Group, 95% of the survey respondents said they would prefer implanted microchips if electronic identification becomes mandatory by the National Animal Identification System. Ninety three per cent said they preferred microchips over other methods of identification. Sixty-seven per cent of the respondents said they already had at least one animal in their herd identified with an implanted microchip.

Dr. Jim Stark, DVM, implants microchips into all types of animals, including the alpacas he and his wife, Linda, raise on their farm near Dubuque, Iowa. "Microchips are easy to implant, usually last the life of the animal and have no known side effects" commented Dr. Stark. "I was recently involved in a project to implant microchips into rare, endangered Wyoming Toads. The little toads had to be individually identified so they could be monitored for health conditions. Microchips are

safe and work very well for wildlife, small pets, large animals, and especially alpacas."

What is a Microchip?

A microchip is a computer chip that is about the size of a pencil lead and is one-quarter inch long. It is encased in a smooth glass material that is inert. The microchip is small enough to fit in a medium-sized hypodermic needle.

The microchip is injected under the skin layers, parallel to the surface of the skin and lies there in an inert state. The microchip has no power supply or battery. It has no moving parts and requires no maintenance. Most chips have an operating life of over 25 years. A thin layer of connective tissue forms all around a microchip when it is injected under the skin. The chip stays in the injection site for the life of the alpaca.

How Does it Work?

A small, hand-held scanner of the proper type is passed about three inches over the microchip. The scanner sends a safe radio wave signal to the microchip. The microchip then sends a unique number back to the scanner and it appears on a screen. Microchips are manufactured by several companies.

The microchips each have their own frequency range and require a scanner of the proper type in order to be able to read them.

Microchips are injected into an alpaca very similar to a standard injection. The chips are injected subcutaneously. The microchip is implanted under the skin layers and parallel to the surface of the skin.

The most common location for implanting microchips in

Microchips are about the size of a pencil lead and one-half of an inch long, encased in smooth glass and are inert.



Alpaca owners have the highest rate of participation for using microchip implants out of all animal owner groups.

alpacas is at the base of the left ear on the top of the head. The site is located above and in front of the left ear on the “poll” of the head. Other locations are sometimes used for implantation sites but are not as common.

Microchip Packaging

Microchips come in various packaging systems. One is the sterile syringe pack. This is a sterile syringe that contains one microchip loaded in the needle. These cost about \$11 per syringe and microchip. For implantation, the veterinarian breaks the seal on the sterile syringe and implants the preloaded microchip under the skin of the alpaca. The microchip number is indicated on the syringe and on numbered stickers that are also provided.

Another type of microchip delivery system is the bulk microchip package. Non-sterile microchips packaged twenty-five to the cartridge are utilized. These microchips cost about \$7 each. Each chip must be scanned prior to injection to identify the number on the chip. The veterinarian must disinfect, load, and inject each chip using a reusable bulk syringe. A syringe and 12-gauge needle used for the procedure costs about \$7.50.

Yet another system uses an injector (\$8) and sterile microchips (\$10). The injector slides a sterile microchip through the injector and on through a needle for implanting. The injector costs about \$8 and the microchips are about \$10 each.

How to Implant Microchips

A veterinarian can implant a microchip in a cria at a young age. A good technique for implanting a microchip in a cria is for one person to hold the cria in a cushed position on his lap, with the head and neck of the cria under one arm. In this position, the head is immobilized temporarily for the procedure.

Implanting a microchip in a large, adult alpaca can best be done using a head gate and chute. The immobilization of the head will help your veterinarian do a good, safe job of implanting the microchip.

After the microchip is implanted, check to ensure



Dr. Mobley implants a microchip in a large, adult alpaca using a head gate and chute. The immobilization of the head will help ensure a safe job of implanting the microchip.



Dr. Greg Mobley, DVM, implants a microchip in a cria by having a person hold the cria in a cushed position on his lap. With the neck under one arm, the head is immobilized temporarily for the procedure.

Husbandry Hints

you can read the microchip with a scanner. Record the number, enter it in your alpaca herd records, and consider sending the microchip number in to the Alpaca Registry to have it placed on the alpaca registration papers.



A sterile syringe that contains one microchip that is loaded in the needle. These cost about \$11 per syringe and microchip.



A deluxe multi-scanner can be purchased for \$300 and can be used to read several different types and brands of microchips.



To scan a microchip, activate the scanner, press and hold down the 'read' button to put the scanner in the 'Looking' mode. Then, rotate the read end of the scanner in a circular pattern over the area of the alpaca known to have the microchip.

Microchip Scanners

Scanners that read microchips come in several different forms. A simple scanner can be purchased for about \$200, but will read only one type of chip. A more deluxe multi-scanner can be purchased for \$300 and can be used to read several different types and brands of microchips. Both of these scanners are about seven inches long, two and one-half inches wide, and one inch thick. They use common nine volt batteries and can read microchips up to about three inches away.

A larger, more powerful scanner with a recharging system can be purchased that can read microchips from six to twenty inches away from the microchip. This scanner costs about \$1,025.

The proper technique for reading a microchip is to turn on the reader, then press and hold down the reader button to put the scanner in the "Looking" mode. Then, rotate the read end of the scanner in a circular pattern over the area of the alpaca known to have the microchip. When a microchip is found, the reader emits a sound and displays the microchip number on the LCD screen.

Dr. John R. Wade, DVM, Vice President of Microchip I. D. Systems, Inc., has been working with microchip animal identification systems since 1989. According to Dr. Wade, "Alpaca owners have the highest rate of participation for using microchip implants out of all animal owner groups. In all the years I have worked with supplying microchips for animals, alpacas have had an extremely high success rate. We just do not see issues with implanting microchips in alpacas."

Microchips are safe and relatively easy to implant in alpacas. Microchip implantation has proven to be a very reliable method for identifying individual alpacas attending alpaca shows, being transported, or being tested for veterinary purposes.

Bill and Sherri Duey operate Southern Iowa Alpacas ranch located in the hills of southern Iowa, 60 miles southeast of Des Moines. They specialize in raising Full Accoyo herd sires. They have incorporated innovative features into their alpaca ranch and conduct seminars on business planning, animal selection, and ranch setup for new alpaca ranchers. They also enjoy helping existing ranchers learn about new products and techniques for fine tuning their operation. You may view their website at southerniowaalpacas.com or contact them directly at alpacas@southerniowaalpacas.com.