



## A survey on traditional practices adopted for restraining camel in Rajasthan

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### ABSTRACT

The present study aimed to document details about traditional practices adopted for restraining camel in Rajasthan. The information was collected by discussing villagers of the study area using the “Transect walks” method of the Participatory Rural Appraisal (PRA) technique from August 2014 to September 2015. The study revealed that restraining practices vary with age of the animal and purpose of restraining. Homemade rope halter is primarily used for restraining young camels, while use of nose-peg and nose-rings are common techniques used in adult animals. Tying fore or hind legs with rope is frequently used for restraining animals in standing or sitting position.

**Key words:** Camel, Restraining, Technique, Traditional-practice

Dromedary camel, a tall and heavy animal weighing 400–600 kg, can kick in different directions. Besides, it has large incisors and canine teeth, hence can inflict serious injuries by biting neck or any other body parts of the handler. Although majority are well-tempered and manageable, the dromedary or single humped camels (*Camelus dromedarius*) are rated as dangerous (male) and hazardous (female) because of the above mentioned reasons (Moretti 2015). There are several techniques for physical restraint of camels, selection and preference of their use varies from country to country. For example use of bridles is more common in Egypt, while halter is preferred in Sudan. Camel- keepers of Rajasthan while raising camels through centuries have evolved some unique techniques for physical restraint. However, there seems no scientific report available on different restraining techniques that are applied in camels. Present study aims to document all such useful traditional techniques for restraining camels in farm and field for various purposes.

### MATERIALS AND METHODS

The study was carried out in 12 villages of district Bikaner, Jaisalmer and Udaipur adopting transect walks method of the participatory rural appraisal (PRA) technique. The transect walk method involved walking with the local people and discussing different methods adopted for restraining camel. Key research participants like camel owners and camel handlers (20) were interviewed during August 2014 to September 2015. The informants explained and demonstrated various traditional techniques of camel

restraining and photographs of important techniques were taken during the study. This technique was adopted because it is suitable for low-literacy communities (Kumar and Bharati 2013).

### RESULTS AND DISCUSSION

There are several techniques in vogue in different parts of Rajasthan. The selection of a particular technique depends upon age of the animal, nature of the animal and purpose and/ or duration for restraining (Table 1).

#### *Young animals*

Breaking or training of a camel for riding or baggage or draught purposes usually starts at the age of 2.5 to 3 years. Waiting until after this time may result in stubborn and troublesome animals. Physical restraint of a young camel is more difficult than young cattle, as it is more active and fearful to human handling. Moreover, their bone is fragile; hence fracture may be induced during forceful handling and casting. Halters are commonly used for controlling young camel in Rajasthan.

*Halters:* Special halters for young camels made up of leather or some other material (Fig. 1a) is occasionally available in rural areas of Rajasthan. Camel farmers therefore, mostly use homemade halters prepared from plastic or cotton rope (Fig. 1b), commonly known as *mora* in local language. The halter available for cattle calf is sometimes also used for controlling young camel. The muzzle portion of the halter encircles the jaw in the caudal one-third of the nasal passage and fits securely around the head. The rostral one-third to half of the bridge of the nose of camelids is comprised of soft cartilage; hence a tightly fit halter may compress the nasal passage (Anderson *et al.* 2013). Therefore, use of halters for handling and restraining

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Table 1. Different methods for restraining camel

Age group/ Purpose of restraining	Restraining methods
Young animals	Halters, hobbles
Adult male	A combination of halter and nose-peg, sometimes combination of nose-peg and nose ring and hobbles
Adult female	Halters, nose-peg, nose rings, folding and tying foreleg
Docile animal/ restraining for short period	Restraining in standing position with one foreleg folded and tied, use of halters either alone or in combination with nose-peg, restraining in sitting position with one fore-leg tied at elbow joint.
Restraining for long period/ furious animal/ painful procedures like hot branding, nose piercing, nose-peg application etc.	Tying all four legs in sitting position, placing a loop over neck with fore-legs tied together, hind quarters tied with a crossover rope passing above the back.

camels should be done with caution. A young camel fitted with halters and lead rope should never be tied and left unattended. Halter is also used for controlling adult camels either alone or in combination with nose-peg and rein (Fig. 2).

#### Adult animals

**Nose-peg:** Halter alone is usually insufficient to control an adult camel, hence fitting of nose-peg after nose piercing is performed particularly in male animals kept for draught, riding or breeding purposes. Nose-pegs are used largely in India, Pakistan and Yemen and rarely in other camel rearing countries. Nose-peg commonly known as *towan* in local language in Rajasthan, provides a very effective tool for restraint particularly for male during the breeding season.

Nose piercing and application of nose-peg is performed at the age of about 3 years. After proper restraining by tying all 4 legs in sitting position, nose is pierced with the help of a thick pointed iron needle at about 2.5 cm posterior to the posterior fissure of the nostril in the cartilage below the edge of the nasal bone and about 0.5 to 10 cm above the posterior fissure (Rathore 1986). A thick cotton thread is inserted into the hole created by nose piercing and is left tied until the wound heals. A thick paste prepared by boiling turmeric powder in ghee is applied daily till wound healing. Some people apply fresh urine collected from a healthy human being with the help of a small wooden stick. The process is mostly performed during winter when fly population is minimal. Usually only one nostril is pierced at one time, and the second nostril is pierced when healing in one nose is complete. When healing is accomplished in both nostrils nose-peg is applied.

A nose-peg is usually made up of light but hard wood. Nose peg made up of *phoag* (*Calligonum- polygonoides*)/ *sheesam* (*Dalbergia- sissoo*)/ or *aadu* (*Prunus- persica*) wood are considered to be of good quality. Metallic or bone nose-pegs are rarely used in Rajasthan. A nose peg is approximately 5 to 7 cm in length with its anterior end pointed conical, posterior end coin like circular flat and middle part is cylindrical (Fig. 3a). Wooden nose-peg is first dipped in mustard (*Brassica -spp*) oil for a night or two to make it soft. The cotton rope fitted inside the hole is gently removed and pointed anterior end of nose-peg is inserted into the hole from inside of the nostril and posterior

round part is pushed outward until the anterior conical part comes out from the hole created in the nasal septum (Fig. 3b). The nose-peg is inserted into both nostrils. Sometimes, a nose belt, commonly known as *patadi* is applied in between the 2 nose-pegs covering the nasal bone (Fig. 2). This provides a kind of balancing action while traction is applied to the nose-peg, thereby prevents soft tissues injury. This is also sometimes fitted with ornamental colourful bunch of threads for decorative purposes. Turmeric-ghee paste is again applied for few days until proper wound healing is achieved. After few days or a month, when the camel get accustomed to the nose-peg, a small, thin and strong cotton string (known as *bedcha* in local language) with one loop on either end is taken, one loop is tied with the nose-peg and the other loop is attached with a rein (Fig. 2). The reins attached with the nose-peg through cotton string is then tied with the neck of the camel and is left for few days to get accustomed to the whole attachment. Nose-peg and reins are then ready for use in restraining and handling.

**Nose-rings:** It is equivalent to nose tongs used in cattle. In this 3 to 5 rings of 1 to 2 cm diameter, made up of silver or copper is inserted into upper flap of the nostril on each side (Fig. 4). A thin but strong cotton rein is attached to provide an additional tool for restraining. This is applied largely in male camels during the breeding season or in aggressive or non-obedient female camel during work. Camel trainers also use this tool while training the camel for dance or some other kind of performance. Besides above, it also has some decorative value in show camels. Restraint for examination, treatment and other clinical procedures

**Restraint in standing position:** For restraining in standing position, one foreleg is flexed at knee joint and tied with a rope to place a loop like figure 8 (Fig. 5a). In this position, a camel is unable to kick with its hind quarters. Sometimes, a wooden peg is used for easy and quick application of the knot (Fig. 6b). Some camels may gallop for short distance using a short stride with the help of three legs.

Hobbles are routinely employed to minimize straying when animals are released to graze (Flower 2010). It is used in young and adult camels while grazing in large pasture area, particularly when camel is introduced in the grazing area for the first time.



Fig. 1.(a-b). **a.**Readymade halters made up of synthetic rope/leather. **b.** Homemade halter made up of cotton rope.

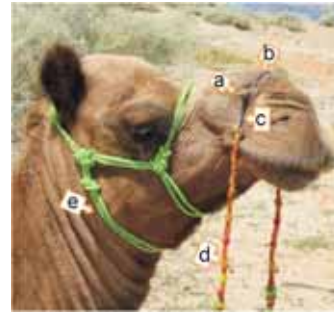


Fig. 2. Restraint methods in camel. **A.** Nose-peg or *Towan*. **B.** Nose-belt or *patadi*. **C.** *Bedcha*. **D.** Rein. **E.** Rope halter.



Fig. 3. (a-b). **a.**Wooden nose peg for camel. **b.** Fitting of nose peg.



Fig. 4. Nose rings (arrow) fitted in two camels.



Fig. 5 (a-b). **a.** Restraining of a camel in standing position by folding and tying one foreleg. **b.** Restraining camel while milking.

for complete restraining. For tying hind legs, a rope is tied below the fetlock joint in each hind leg and then camel is commanded to sit down. After sitting, the rope is placed medial to the stifle and tied together over the back behind the rump.

*Restraint while milking:* To prevent kicking while milking, a rope is used to fasten the hind legs together. The hind limbs are attached together by a hock twist with the help of cotton rope is usually sufficient for restraining while milking (Fig. 5b).



Fig. 6 (a-c).**a.** Restraining head by holding upper and lower lips. **b.** Use of a wooden peg in quick tying one foreleg. **c.** Restraining by tying forelegs and neck.

*Restraint in sitting position:* Control over head and neck is very important while restraining in sitting position. For short term head control, holding upper or lower lip or holding pinna and lower lip may be sufficient for docile animals (Fig. 6a). A trained camel fitted with nose-peg and reins usually sits down when the handler lower down the neck with the help of rein and give command in form of verbal signals. Sometimes, pulling head with the help of a loop placed around head is required to direct a camel to sit down. Thereafter, a rope loop is placed over the neck and both forelegs are tied behind the elbow joint (Fig. 6c). Sometimes, tying both hind legs are required

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