Acquisition and acclimation of feral caribbean donkeys for use in reproductive research

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There are an estimated 41 million donkeys (Equus asinus) worldwide, 96% of which inhabit developing countries. Humane population management has become an important subject of concern in the Caribbean as uncontrolled breeding leads to depletion of food resources, poor body condition and ultimately starvation of donkeys. Information regarding the reproductive cycles of donkeys in the tropics is anectdotal and incomplete to use in management protocols. The following describes the methodology used to capture and safely use donkeys in a population management research study.

Local farmers were contracted to locate and humanely capture twenty-five late-term gestation jennies, from the island of Nevis. Once captured, the donkeys were tethered until examination by research investigators. A safe environment to work with the feral donkeys was created by the utilization of commercially available transportable miniature horse stocks which were modified to accommodate an adult donkey. The height of the stocks was increased to 120cm on all four sides using common home framing lumber. The jennies were then moved into the modified stocks where they were examined and trans-abdominally ultrasounded to confirm gestational age of pregnancy.

Once on premises of the research facility, jennies were handled once a day to become accustomed to being led by a halter and lead rope. Grooming and treat training were used to acclimate the feral donkeys to human interaction. Once tolerant of their handlers, jennies were introduced to the stocks and allowed to acclimate while eating a complete equine pelleted feed within the confinement. Jennies were then monitored via trans-abdominal ultrasonography weekly for gestational changes. Fetal heart rate, aortic diameter, and presentation at time of examination was recorded for each donkey. One week after foaling the jennies were evaluated via trans-rectal ultrasonography. Donkeys were restrained only by the confines of the modified stocks and the distraction of pelleted feed. No complications were seen and all jennies were examined in the same manner at weekly intervals. Foals were separated during the time of the examinations and neither dams nor foals demonstrated outward behavioral signs of stress. Three jacks were used to detect estrus in a fenced paddock while females were restrained via halter and lead rope around the outside perimeter of the paddock. Jennies' responses to the jacks were recorded on a scale of 0-3. Foals were weaned in pairs between the ages of 4 and 6 months without complications. The jennies' reactions to weaning were observed and varied from no signs of agitation to pacing the pasture, with the longest period of time being 2 hours before returning to the herd and resuming normal grazing behavior.

Although modifications were required, the feral donkeys quickly became very amenable research subjects. The researchers are confident that this method can be widely used for the acquisition and acclimation of feral donkeys for a large variety of research interests with minimal stress and risk to the donkeys.