The practice of castration in cattle is a routine management in farms. For being a painful practice that may compromise the animal's physical and emotional integrity, it is a frequent subject of research. This qualitative study was carried out to characterize the practice of castration and the pain indicators used by Brazilian veterinarians and animal scientists. The survey was provided electronically to professionals and published in social media with letter explaining its purposes. The research was carried out from July 2016 to July 2017 in Brazil. Descriptive statistics were used to evaluate the data. A total of 116 questionnaires were analyzed. The majority of respondents were male (73%), born in 1970s (27%) and 1980s (53%) and postgraduates (67.2%). Castration is realized in perinatal cattle (up 2 months or 70 kg) by 34.5% of the respondents; in lactating calves (between 2 and 8 months or 71 and 200 kg), by 40.5%; and in adults (>8 months or >200 kg), by 25%. The most frequently used method for castration in perinatal cattle were scalpel (53.7%), conventional knife (23.1%) and, less common, burdizzo (9.1%). In lactating cattle, scalpel (48%), burdizzo (17%), and conventional knife (16.2%) were used. In adult animals, scalpel (43%), burdizzo and emasculator (20.3%). The respondents mentioned that the most common indicators used for pain perception were: animal reaction when handling the wound (21.5%), head movements towards the wound site (20.1%), abnormal walking (18.1%), and loss of appetite (15.3%). Most professionals (60%) disagreed with the statement "it is difficult to recognize pain in animals", which can be explained the frequency of respondents in events about animal welfare (72.4% of participation at least once a year). From these preliminary results, it is observed that the practice of castration in Brazil is conducted using different methods in different ages, which may be due to the absence of management protocol, with information that helps to mitigate pain and to provide better welfare for cattle.

**Keywords:** animal welfare, beef, dairy, pain perception

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