**Table S1.** Alphabetical list of identified relevant literature on sustainability aspects (biodiversity, production performance, economic value, and greenhouse gas emissions) of bison production.

| Identified relevant literature | Biodiversity | Production performance | Economic value | Greenhouse gas emissions |
|---|---|---|---|---|
| Aalhus & Janz (2000) | | | X | |
| Allred, et al. (2011) | X | | | |
| Altizio & Westendorf (1999) | | | X | |
| Baril (2009) | X | | | |
| Barsh (1990) | X | | | |
| Berger & Peacock (1988) | | X | | |
| Blackwell (2011) | | X | X | |
| Bragg & Smith (1942) | X | | | |
| Chipault & Detling (2013) | X | | | |
| Christopherson et al. (1979) | | X | | |
| Christopherson et al. (1978) | | X | | |
| Church et al., (1999) | | X | | |
| Constible et al., (2005) | X | | | |
| Fahnestock & Detling (2002) | X | | | |
| Fahnestock & Knapp (1994) | X | | | |
| Fay (2003) | X | | | |
| Flocchini (2010) | | X | | |
| Fox et al. (2012) | X | | | |
| Freese et al. (2007) | X | | | |
| Fuhlendorf et al. (2010) | X | | | |
| Fuhlendorf et al. (2009) | X | | | |
| Galbraith et al. (2014) | | X | X | |
| Galbraith et al. (1998) | | | | X |
| Gates et al. (2011) | X | X | | |

| | | | | |
|---|---|---|---|---|
| Gegner (2001) | | X | X | |
| **Identified relevant literature (cont.)** | **Biodiversity** | **Production performance** | **Economic value** | **Greenhouse gas emissions** |
| Gerber et al. (2013) | | X | | |
| Gerlanc & Kaufman (2003) | X | | | |
| Gibson (1989) | X | | | |
| Government of Saskatchewan (n.d.) | | X | | |
| Halloran (1961) | | X | | |
| Hart (2001) | X | | | |
| Hartnett et al. (1996) | X | | | |
| Hartnett et al. (1997) | X | | | |
| Hawley (1986) | | X | | |
| Hawley (1989) | | X | | |
| Hawley et al. (1981) | | X | | |
| Herring (1996) | | X | | |
| Hobbs et al. (2006) | | | X | |
| Hornaday (1887) | X | | | |
| Kelliher & Clark (2010) | | | | X |
| Knapp et al. (1999) | X | | | |
| Koch et al. (1988) | | X | | |
| Koch et al. (1995) | | X | | |
| Kohl et al. (2013) | X | | | |
| Kolipinski et al. (2014) | | | X | |
| Kremeniuk (2015) | | X | | |
| Lammers et al. (2013) | X | | | |
| Londe et al. (2019) | X | | | |
| Lorenzo et al. (2019) | | X | | |
| Lott (1971) | | X | | |

| | | | | |
|---|---|---|---|---|
| Lulka (2006) | | X | | |
| McHugh (1972) | X | X | | |
| **Identified relevant literature (cont.)** | **Biodiversity** | **Production performance** | **Economic value** | **Greenhouse gas emissions** |
| McMillan et al. (2000) | X | | | |
| McMillan et al. (2019) | X | | | |
| Moran (2014) | X | | | |
| Nickell et al. (2018) | X | | | |
| Nosowitz (2016) | X | X | | |
| Olff & Ritchie (1998) | X | | | |
| Paine (1969) | X | | | |
| Painter & Ripple (2012) | X | | | |
| Patterson & Best (1996) | X | | | |
| Peden et al. (1974) | X | X | | |
| Peters & Slen (1964) | | X | | |
| Peters (1958) | | X | | |
| Plumb & Dodd (1993) | X | | | |
| Powell (2006) | X | | | |
| Reinking et al. (2000) | X | | | |
| Reynolds et al. (2003) | X | X | X | |
| Richmond et al. (1977) | | X | | |
| Rioja-Lang et al. (2018) | X | X | | |
| Rosas et al. (2008) | X | | | |
| Roth & Marzluff (1989) | X | | | |
| Rutley et al. (1997) | | X | | |
| Sambraus & Spannl-Flor (2004) | | X | | |
| Sell (1993) | | X | | |
| Shaw & Carter (1989) | | X | | |
| Steiner et al. (2010) | | X | X | |

| | | | | |
|---|---|---|---|---|
| Steuter & Hidinger (1999) | X | | | |
| Steuter et al. (1995) | X | | | |
| **Identified relevant literature (cont.)** | **Biodiversity** | **Production performance** | **Economic value** | **Greenhouse gas emissions** |
| Torok et al. (1998) | | | X | |
| Towne (1999) | | X | | |
| Towne et al. (2005) | X | | | |
| Truett & Savage (1998) | X | | | |
| Truett et al. (2001) | X | | | |
| USDA (2013) | | X | | |
| Walk & Warner (2000) | X | | | |
| Winter et al. (2015) | X | | | |
| Woynarski (2017) | | | X | |