| **Reference** | **Population** | **Sampling method** | **Sampling approach** | **Bias****(gaps in method description)** | **Diagnostic test[[1]](#footnote-1)****(cut-off)** | **Period of****sampling[[2]](#footnote-2)** | **Region** | **Location[[3]](#footnote-3)** | **Livestock system** | **Sample size****(no. herds)** | **Prevalence****(herd prev.) %** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Maurice et al., 2013 | Pastoralist herdsSedentary herds | PS? | Cross-sectional survey | Sampling frame or method not described | RBT | 2013 | North | Plateau State | EXTINT | 206 (NS)64 (NS) | 11.6 (NS)3.1 (NS) |  |
| Cadmus et al., 2013 | Nomadic Fulani herdsSedentary herds | PS?[[4]](#footnote-4) | Every 3rd herd selected, 5% of herd sampled | Small sample size(Sampling frame not described) | RBT | 2013 | West | Ogun State, Yewa Division | EXTINT | 64 (NS)88 (NS)  | 4.7 (NS)7.9 (NS) |  |
| Mai et al., 2012 | Pastoralist and agropastoralist Fulani herds; commercial paddocked and zero-grazing herds | PS | Single stage cluster sampling | Herd selection based on proximity to reliable lab and farmer cooperation  | RBT/C-ELISA(60% OD)6 | 2012 | North | Adamawa, KadunaKano States | COMEXT(Past.)EXT (Agro.)INT (Comm.)INT (0-graz) | 4745 (271)1244 (NS)2758 (NS)642 (NS)101 (NS) | 36.6 (84.9)45.1 (NS) 22.0 (NS)15.9 (NS)23.8 (NS) | Non-adjusted prev.6:40.8%19.5%14.1%21.1% |
| Nuru & Dennis, 1975 | Fulani herds Government ranches | NPS?[[5]](#footnote-5) | NS | Cows observed to have clinical signs of brucellosis sampled(Method characterised in thesis which was not retrievable) | RPT(1:50) | 1972-1974 | North | Overall (Fulani)NE StateNW StateN Central StateBenue/Plateau StateKano StateKwara State Overall (Gov) | EXTEXTEXTEXTEXTEXTEXTINT | 805 (255)177 (NS)151 (NS)149 (NS)159 (NS)29 (NS)140 (NS)227 (11) | 8.8 (NS)6.7 (NS)5.3 (NS)2.0 (NS)3.8 (NS)0 (NS)30 (NS)9.7 (NS) | Same Fulani herd prevalence obtained as for Banerjee & Bhatty (1970) study |
| Banerjee & Bhatty, 1970 | Fulani herdsGovernment LIBC herds | NPS | Convenience sampling | Sera sent to NVRI for various diagnostic purposes, especially for CBPP diagnosis | RPT(1:50) | 1970 | North | NW State, N Central State, NE State, Kano State, Benue/Plateau State | EXTINT | 1,650 (NS) 2350 (NS) | 8.8 (NS)3.7 (NS) | Vaccination campaign with S19 undertaken in government herds |
| Esuruoso, 1974a | Fulani herds, government herds | NPS | Purposive sampling to investigate abortion/fertility problems | Herd selection based on request for investigation from Chief Veterinary Officer of each State | SAT(160iu)/CFT (1:40) | 1968-1974 | NorthWest | Kano State*Kano city**Kadawa\***Kano dairy\***Gayo*NW State*Minna\***Mokwa*Kwara State*Ilorin**Emiryard**Ajara**New Bussa*Benue/Plateau State*Vom\***Kuru*West State*Unife* | COMEXTINT\*INT\*INTCOMINT\*INTCOMINTEXTEXTEXTCOMINT\*INTCOMINT | 53 (4)*5 (1)**10 (1)\***11 (1)\***27 (1)*117 (2)*78 (1)\***39 (1)*113 (4)*62 (1)**30 (1)**14 (1)**7 (1)*52 (2)*37 (1)\***15 (1)*33 (1)*33 (1)* | 9.4 (75)*0 (0)**20 (100)\***18 (100)\***3.7 (100)*11.1 (100)*11.5 (100)\***10.3 (100)*3.5 (50)*5 (100)**3.3 (100)**0 (0)**0 (0)*3.8 (50)*0 (0)\***13.3 (100)*33.3 (100)*33.3 (100)\** | \*Vaccinated herdsManagement system for non-Fulani herds not specified but can assume that intensive management probably applies.Samples considered positive when they were positive for SAT confirmed by CFT for suspicious samples. |

NS- not specified, NPS- non-probability sampling, PS- probability sampling, RPT- rapid plate test, SAT- serum agglutination test, RBT- rose Bengal test, MRT- milk ring test, CT- card test, no. – number, EXT- extensive, INT- intensive, COM- combined, LIBC- livestock investigation and breeding centre, Past.- patoralist, Agro.- agropastoralist, Comm.- commercial, 0-graz.- zero-grazing, Gov.- government.

1. One test seroprevalence value per study reported in this preferential test order: RBT, CT, CFT, RPT, SAT, MRT. For studies that do not report parallel test results, seroprevalence value obtained with tests used in series reported (see text). [↑](#footnote-ref-1)
2. When period of study not specified, year of publication used [↑](#footnote-ref-2)
3. If the samples originate from more than one area, individual prevalence for each area is reported, if not, the overall state/region prevalence is reported [↑](#footnote-ref-3)
4. PS? Denotes that the sampling method is not well described but that probability sampling in most likelihood applies [↑](#footnote-ref-4)
5. NPS? Denotes that the method is not described but that non-probability sampling in most likelihood applies

6 Individual prevalences adjusted for sensitivity and specificity of serial testing system (samples positive or inconclusive with RBT confirmed with C-ELISA). Non-adjusted prevalence calculated as per Mai *et al.* 2012 (apparent prevalence = [true prevalence (0.879+0.998-1)] +1 – 0.998]; 0.998= specificity of RBT\*ELISA in test series; 0.879=sensitivity of test series, AP=TP[Se+Sp-1]+1-Sp). [↑](#footnote-ref-5)