

Journal of Andrology, Vol 18, Issue 6 725-731, Copyright © 1997 by The American Society of Andrology

---

## JOURNAL ARTICLE

# Long-term trends in sperm counts of dairy bulls

J. L. van Os, M. J. de Vries, N. H. den Daas and L. M. Kaal  
Lansbergen  
The Global Institute for the Study of Natural Resources, Den Haag, The Netherlands.

A possible decline in sperm counts in men and its potential relation to exposure to environmental contaminants are subjects of a broad discussion. Whereas data for human research in this area are limited, records over prolonged periods on sperm counts in dairy bulls are amply available and provide useful information. Therefore, 75,238 ejaculates collected between 1977 and 1996 from 2,314 bulls at Noordwest, a center for artificial insemination (AI) in the Netherlands, were used to evaluate long-term trends in sperm output. Data were adjusted for known effects, of which age was the most important, followed by interval between semen collections, breed and season of collection. Mean sperm output per year of collection from 1978 through 1996 varied between  $6.2 \times 10^9$  and  $9.5 \times 10^9$  without any long-term decline. Mean sperm output per year of birth from 1970 through 1995 showed less variation, between  $6.7 \times 10^9$  and  $9.0 \times 10^9$ , also without any long-term decline. Earlier published data of 22,120 ejaculates of 3,030 bulls of the same region, tested between 1962 and 1977, showed a corresponding sperm output, confirming the absence of any decline. The unaffected sperm output in bulls in the Netherlands during the last decades in spite of exposure to pesticides and other polychlorinated organic compounds, the type of environmental contaminants under discussion, is a positive signal, although a complete extrapolation to the human situation remains difficult.

### This Article

- ▶ [Full Text \(PDF\)](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)

### Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)

### Citing Articles

- ▶ [Citing Articles via Google Scholar](#)

### Google Scholar

- ▶ [Articles by van Os, J. L.](#)
- ▶ [Articles by Kaal Lansbergen, L. M.](#)
- ▶ [Search for Related Content](#)

### PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by van Os, J. L.](#)
- ▶ [Articles by Kaal Lansbergen, L. M.](#)