

# ECOS

Number 8

May 1976

Cattle, sheep, and the arid heart	3
Harnessing heat from the sun	11
What happens to animals in a bushfire?	17
Outlook — Phosphorus and feeding the world	22
Spectrum — Helping to work out where to build— Ozone falls as the winds weaken	25
Living with wildlife on the farm	28
Back box — A lesson from rusty match trees	32

*Ecos* describes CSIRO research findings of relevance to our environment. Related findings by other bodies are included where necessary to give perspective to CSIRO work. Stories are based on reports, published research papers, and information obtained by interviewing scientists.

Technical inquiries should be sent to the CSIRO Divisions concerned. All other correspondence should be addressed to: Senior Writer, *Ecos*, P.O. Box 225, Dickson, A.C.T. 2602.

Subscriptions to *Ecos*: \$3.00 a year for four copies, post-free. Single copies 80c each. Cheques should be sent to CSIRO Editorial and Publications Service, P.O. Box 89, East Melbourne, Vic. 3002. Organizations with environmental interests may apply to be placed on our free mailing list.

The two quarterlies *Ecos* and *Rural Research* and the bi-monthly *Industrial Research News* are produced by a writing group in CSIRO's Science Branch at Head Office.

**Writers:** Brian Woodruff (senior writer), Kay Hendy, Brian Lee, Robert Lehane, and James Lumbers.

**Editorial assistance:** Yvonne Roberts.

**Designer:** Willem Bloem.

**Credits:** Australian Information Service, Professor Derek Ovington, Joseph Oros, Vincent Russell, Ederic Slater, Soil Conservation Service of New South Wales, Colin Totterdell, Bill van Aken, Western Australian Department of Agriculture, and David Whillas. Other pictures came from the scientists and organizations mentioned in the stories. Cartoons by John Wedlick.

## Around CSIRO's Divisions

**Agro-industrial Research Unit**  
P.O. Box 1666, Canberra City,  
A.C.T. 2601.  
46 4911

**Animal Health**  
Private Bag No. 1, Parkville, Vic. 3052.  
Melbourne 347 2311

**Animal Production**  
P.O. Box 239, Blacktown, N.S.W. 2148.  
Sydney 631 8022

**Applied Geomechanics**  
P.O. Box 54, Mt Waverley, Vic. 3149.  
Melbourne 232 6111

**Applied Organic Chemistry**  
P.O. Box 4331, Melbourne, Vic. 3001.  
64 0251

**Atmospheric Physics**  
P.O. Box 77, Mordialloc, Vic. 3195.  
Melbourne 90 6333

**Australian Numerical Meteorology  
Research Centre**  
P.O. Box 5089AA, Melbourne, Vic. 3000.  
662 2900

**Building Research**  
P.O. Box 56, Highett, Vic. 3190.  
Melbourne 95 0333

**Chemical Engineering**  
P.O. Box 312, Clayton, Vic. 3168.  
Melbourne 544 0111

**Chemical Physics**  
P.O. Box 160, Clayton, Vic. 3168.  
Melbourne 544 0633

**Chemical Technology**  
P.O. Box 310, South Melbourne,  
Vic. 3205.  
Melbourne 69 7661

**Cloud Physics**  
P.O. Box 134, Epping, N.S.W. 2121.  
Sydney 869 1111

**Computing Research**  
P.O. Box 1800, Canberra City,  
A.C.T. 2601.  
46 4911

**Entomology**  
P.O. Box 1700, Canberra City,  
A.C.T. 2601.  
46 4911

**Environmental Mechanics**  
P.O. Box 821, Canberra City,  
A.C.T. 2601.  
46 4911

**Fisheries and Oceanography**  
P.O. Box 21, Cronulla, N.S.W. 2230.  
Sydney 523 6222

**Food Research**  
P.O. Box 52, North Ryde, N.S.W. 2113.  
Sydney 888 1333

**Forest Research**  
P.O. Box 4008, Canberra, A.C.T. 2600.  
81 8211

**Horticultural Research**  
Box 350, G.P.O., Adelaide, S.A. 5001.  
79 3605

**Human Nutrition**  
Kintore Avenue, Adelaide, S.A. 5000.  
223 5511

**Irrigation Research**  
Private Bag, Griffith, N.S.W. 2680.  
62 1700

**Land Resources Management**  
Private Bag, Post Office, Wembley,  
W.A. 6014.  
Perth 87 4233

**Land Use Research**  
P.O. Box 1666, Canberra City,  
A.C.T. 2601.  
46 4911

**Marine Biochemistry Unit**  
Building A12, University of Sydney,  
Sydney, N.S.W. 2006.  
660 7506

**Mathematics and Statistics**  
P.O. Box 1965, Canberra City,  
A.C.T. 2601.  
46 5560

**Mechanical Engineering**  
P.O. Box 26, Highett, Vic. 3190.  
Melbourne 95 0333

**Mineral Chemistry**  
P.O. Box 124, Port Melbourne,  
Vic. 3207.  
Melbourne 647 0211

**Mineral Physics**  
P.O. Box 136, North Ryde,  
N.S.W. 2113.  
Sydney 888 1666

**Mineralogy**  
CSIRO Private Bag, Wembley,  
W.A. 6014.  
Perth 87 4233

**Molecular Genetics Unit**  
P.O. Box 90, Epping, N.S.W. 2121.  
Sydney 88 0221

**National Measurement Laboratory**  
University Grounds, City Road,  
Chippendale, N.S.W. 2008.  
Sydney 660 0566

**Plant Industry**  
P.O. Box 1600, Canberra City,  
A.C.T. 2601.  
46 4911

**Process Technology**  
P.O. Box 136, North Ryde, N.S.W. 2113.  
Sydney 888 1666

**Protein Chemistry**  
343 Royal Parade, Parkville, Vic. 3052.  
Melbourne 347 5211

**Radiophysics**  
P.O. Box 76, Epping, N.S.W. 2121.  
Sydney 869 1111

**Soils**  
Private Bag No. 1, Glen Osmond,  
S.A. 5064.  
Adelaide 79 3605

**Solar Energy Studies Unit**  
P.O. Box 89, East Melbourne, Vic. 3002.  
Melbourne 419 1333

**Textile Industry**  
P.O. Box 21, Belmont, Vic. 3216.  
Geelong 43 4377

**Textile Physics**  
'The Hermitage', 338 Blaxland Road,  
Ryde, N.S.W. 2112.  
Sydney 80 0211

**Tribophysics**  
University of Melbourne, Parkville,  
Vic. 3052.  
Melbourne 347 1722

**Tropical Agronomy**  
Cunningham Laboratory, Mill Road,  
St Lucia, Qld. 4067.  
Brisbane 70 7121

**Wheat Research Unit**  
Private Bag, North Ryde, N.S.W. 2113.  
Sydney 88 0211

**Wildlife Research**  
P.O. Box 84, Lyncham, A.C.T. 2602.  
Canberra 48 7122