Correspondence

The Editor
Australian Meteorological Magazine

Dear Sir,

You recently published favourable reviews of my oceanographic and meteorological tables published by Applied Environmetrics. The meteorological tables were prepared so as to meet the needs of fire meteorologists. I was therefore very concerned that the reviewer of the meteorological tables claimed, on a hearsay basis, that the 'McArthur and Rothermal [sic] formulae used in the tables are not considered fully appropriate for Australian vegetation types which differ significantly from those used in the derivation of the formulae'. This statement is both incorrect and misleading.

Firstly, the Rothermel model is used by the US Forest Service and was included because of this. It was derived on the basis of laboratory experiments and its proponents claim that it is appropriate to different vegetation types because the vegetation type is parametrised by the surface area to volume ratio of the fuel.

Secondly, the derivation of the McArthur formulae was based on observations of Australian grassland fires. Because of this their predictions are accorded great respect by Australian fire-fighting authorities, all of whom (including the Bureau of Meteorology) use some form of the McArthur meter.

If the statement is meant merely to emphasise the fact that predictions and observations sometimes differ then it is hardly fair to blame the meteorological tables for this. They give the best, presently available, tools. We are working on better prediction tools for the future. It will be appropriate to incorporate these new predictive tools in the meteorological tables only when they have achieved the same level of acceptance as the McArthur or Rothermel models.

Tom Beer
CSIRO Bushfire Research Unit

The Editor
Australian Meteorological Magazine

Dear Sir,

I am pleased that Dr Beer found my review, overall, favourable. The Bureau of Meteorology experts consulted about the fire danger tables had reservations about the applicability of these formulae to all Australian vegetation types. However, grassland fires as such are indeed covered by McArthur's formulae, and proponents of the Rothermel model do claim it is appropriate to different vegetation types. I gladly agree that the author has utilised the best tools presently available.

I hope that CSIRO and Bureau research and experience will indeed provide formulae to better cover a wide range of types and conditions, and that their subsequent inclusion will further improve the tables.

Arthur Young