Model call record

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Calculates emission factors

Check package version.

```
packageVersion('ALFAM2')
```

```
## [1] '1.5.5'
```

Parameter values.

```
ALFAM2pars02
```

```
##               int.f0     app.mthd.os.f0      app.rate.ni.f0          man.dm.f0
##           -0.60568338        -1.74351499         -0.01114900         0.39967070
## man.source.pig.f0     app.mthd.cs.f0              int.r1      app.mthd.bc.r1
##           -0.59202858        -7.63373787         -0.93921516         0.79352480
##            man.dm.r1        air.temp.r1           wind.2m.r1      app.mthd.ts.r1
##           -0.13988189         0.07354268          0.15026720        -0.45907135
## ts.cereal.hght.r1           man.ph.r1              int.r2          rain.rate.r2
##           -0.24471238         0.66500000         -1.79918546         0.39402156
##               int.r3      app.mthd.bc.r3      app.mthd.cs.r3            man.ph.r3
##           -3.22841225         0.56153956         -0.66647417         0.23800000
## incorp.shallow.f4  incorp.shallow.r3       incorp.deep.f4        incorp.deep.r3
##           -0.96496655        -0.58052689         -3.69494954        -1.26569562
```

Run model

With set 2 parameters

```
refpreds <- alfam2(refdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', group = 'id', warn = TRUE, prep = TRUE)
```

```
## User-supplied parameters are being used.

## Warning in alfam2(refdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 14 parameters. Dropped 10 with no
## These secondary parameters have been dropped:
##    app.mthd.cs.f0
##    app.mthd.bc.r1
##    app.mthd.ts.r1
##    ts.cereal.hght.r1
##    app.mthd.bc.r3
##    app.mthd.cs.r3
##    incorp.shallow.f4
##    incorp.shallow.r3
##    incorp.deep.f4
##    incorp.deep.r3
##
## These secondary parameters are being used:
##    int.f0
##    app.mthd.os.f0
##    app.rate.ni.f0
##    man.dm.f0
##    man.source.pig.f0
##    int.r1
##    man.dm.r1
##    air.temp.r1
##    wind.2m.r1
##    man.ph.r1
##    int.r2
##    rain.rate.r2
##    int.r3
##    man.ph.r3
```

```r
lfpreds <- alfam2(lfdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', group = 'id', warn = TRUE, prep = TRUE)
```

```
## User-supplied parameters are being used.

## Warning in alfam2(lfdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 14 parameters. Dropped 10 with no
## These secondary parameters have been dropped:
##    app.mthd.cs.f0
##    app.mthd.bc.r1
##    app.mthd.ts.r1
##    ts.cereal.hght.r1
```

```
##     app.mthd.bc.r3
##     app.mthd.cs.r3
##     incorp.shallow.f4
##     incorp.shallow.r3
##     incorp.deep.f4
##     incorp.deep.r3
##
## These secondary parameters are being used:
##     int.f0
##     app.mthd.os.f0
##     app.rate.ni.f0
##     man.dm.f0
##     man.source.pig.f0
##     int.r1
##     man.dm.r1
##     air.temp.r1
##     wind.2m.r1
##     man.ph.r1
##     int.r2
##     rain.rate.r2
##     int.r3
##     man.ph.r3
```

```r
sfpreds <- ALFAM2mod(sfdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct',
                     time.incorp = 't.incorp', group = 'id', warn = TRUE, prep = TRUE)
```

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## User-supplied parameters are being used.

## Incorporation applied (for group sf 10).

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## Incorporation applied (for group sf 64).
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## Incorporation applied (for group sf 89).
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## Incorporation applied (for group sf 9).

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## Incorporation applied (for group sf 95).

## Incorporation applied (for group sf 96).

## Warning in ALFAM2mod(sfdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 16 parameters. Dropped 8 with
## These secondary parameters have been dropped:
##    app.mthd.cs.f0
##    app.mthd.bc.r1
##    app.mthd.ts.r1
##    ts.cereal.hght.r1
##    app.mthd.bc.r3
##    app.mthd.cs.r3
##    incorp.shallow.f4
##    incorp.shallow.r3
##
## These secondary parameters are being used:
##    int.f0
##    app.mthd.os.f0
##    app.rate.ni.f0
##    man.dm.f0
##    man.source.pig.f0
##    int.r1
##    man.dm.r1
##    air.temp.r1
##    wind.2m.r1
##    man.ph.r1
##    int.r2
##    rain.rate.r2
##    int.r3
##    man.ph.r3
##    incorp.deep.f4
```

```
##    incorp.deep.r3
```

Add results to main df

```
refdat$EF.field.raw <- signif(refpreds$er, 4)
lfdat$EF.field <- signif(lfpreds$er, 4)
sfdat$EF.field <- signif(sfpreds$er, 4)
```