

Custom fuel model sampling and BehavePlus inputs

Field Sampling

Brown's DWF

- 1 hr slash load
- 10 hr slash load
- 100 hr slash load
- litter depth
- slash depth
- shrub depth

40 X 40cm harvest quadrat load

- shrubs live leaves
- shrub 1 hr live stems
- shrub 10 hr live stems
- shrub 1 hr dead standing stems
- shrub 10 hr dead standing stems
- shrub 100 hr dead standing stems
- litter leaves
- litter 1 hr branches
- litter 10 hr branches
- litter 100 hr branches

1 X 1m scrub oak quadrat load

- 1 hr branches of live scrub oak
- 10 hr branches of live scrub oak
- live leaves of scrub oak

Pitch pine plots:

- area of plot
- diameter of trees
- height of trees
- dominance of trees

Fuel summary

Sum of
1 hr dead

Sum of
10 hr dead

Sum of
100 hr dead

Sum of
Live woody

Weighted average
fuel bed depth with
associated total loads for
each component

Canopy bulk density
from worksheet

BehavePlus –Inputs

1 hr fuel load (dead)

10 hr fuel load (dead)

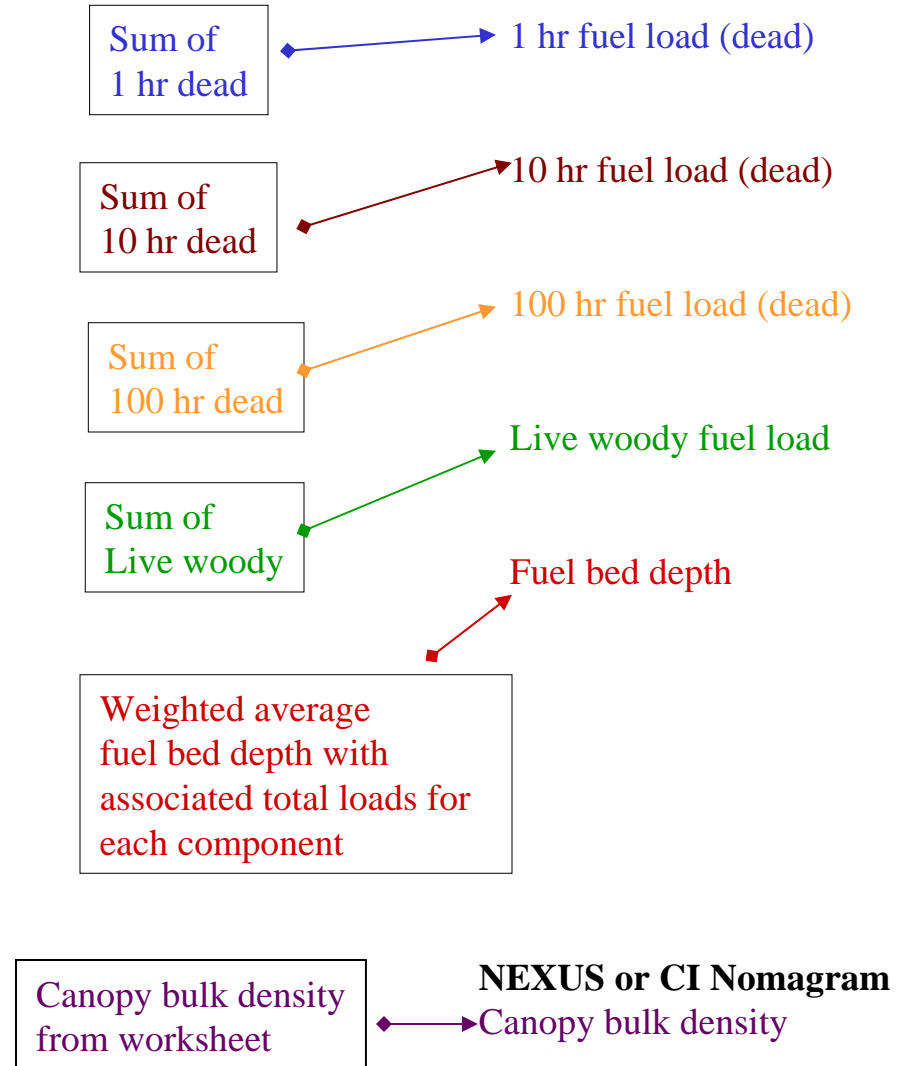
100 hr fuel load (dead)

Live woody fuel load

Fuel bed depth

NEXUS or CI Nomagram

Canopy bulk density



Inputs to BehavePlus CFM pitch pine & scrub oak

Sum: 1 hr fuel load (dead)

- Brown's 1 hr slash load
- 40 X 40cm 1 hr dead standing shrub stems
- 40 X 40cm litter 1 hr branches
- 40 X 40cm litter leaves

Sum: 10 hr fuel load (dead)

- Brown's 10 hr slash load
- 40 X 40cm 10 hr dead standing shrub stems
- 40 X 40cm litter 10 hr branches

Sum: 100 hr fuel load (dead)

- Brown's 100 hr slash load
- 40 X 40cm 100 hr dead standing shrub stems
- 40 X 40cm litter 100 hr branches

Sum: Live woody fuel load

- 40 X 40cm 1 hr live shrub stems
- 40 X 40cm 10 hr live shrub stems
- 1 X 1m 1 hr live scrub oak stems
- 1 X 1m 10 hr live scrub oak stems

Weighted average fuel bed depth

- Litter depth with total litter load
- Slash depth with total slash load
- Shrub depth with total shrub load

CFM constants for pitch pine

1 hour dead SAV ratio	1800
live herb SAV ratio	2500
live woody SAV ratio	1500
moisture of extinction	30
dead heat content	8000
live heat content	8000

CFM constants for scrub oak

1 hour dead SAV ratio	2000
live herb SAV ratio	2500
live woody SAV ratio	1500
moisture of extinction	30
dead heat content	8000
live heat content	8000

Inputs to predict pitch pine crowning index

Canopy bulk density. Measure plots and include:

- Diameter at breast height
- Height
- Crown class (d, c, i, s)
- Slope

Moisture scenario