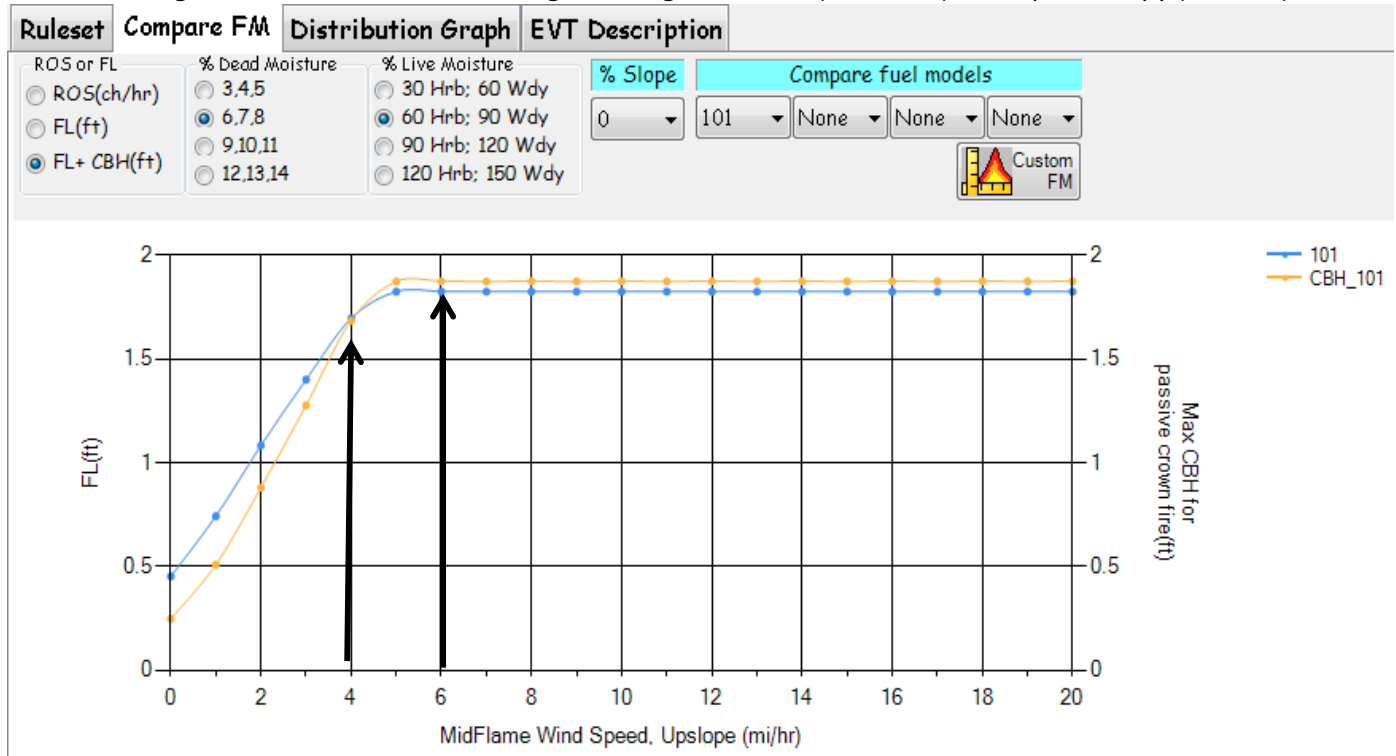
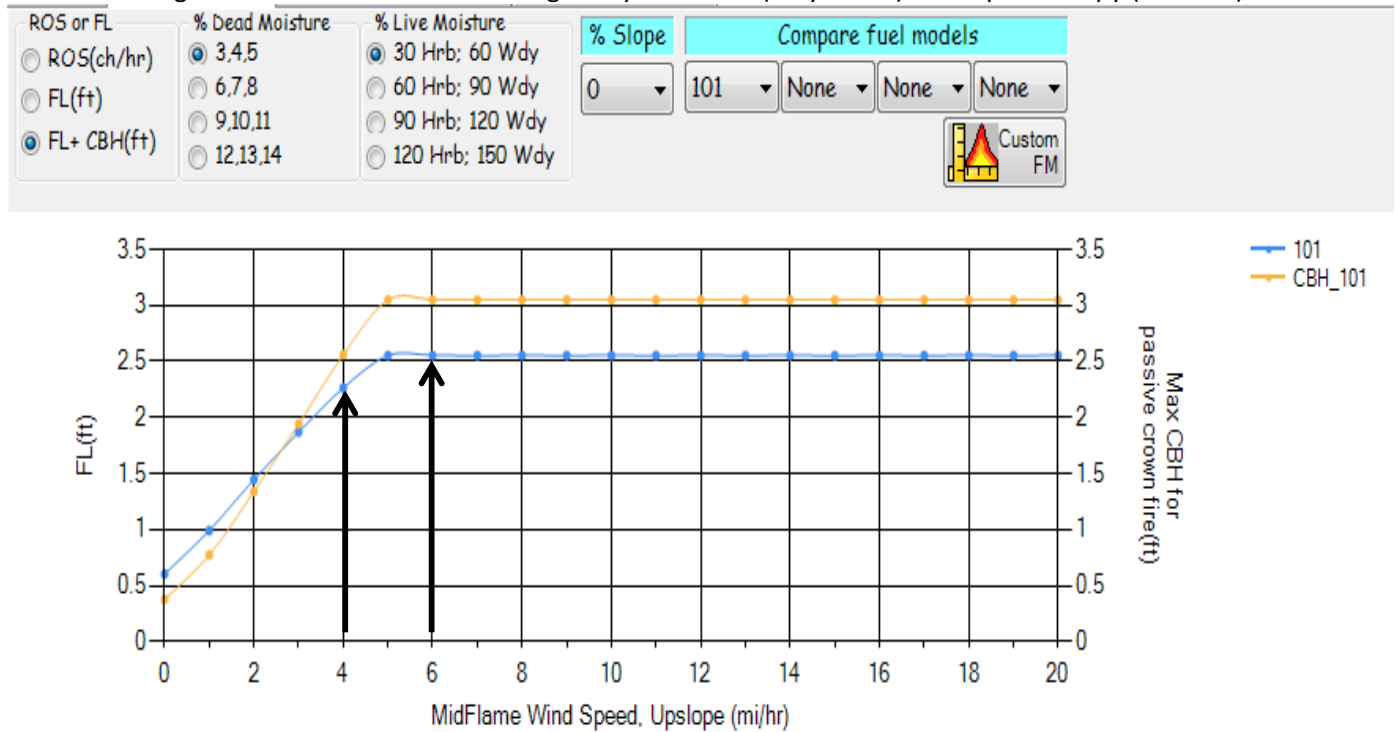


The following chart depicts the flame length (blue line) achieved by GR1 on flat ground with average and low fuel moisture and a range of midflame windspeeds. GR1 has a wind limit in the fire behavior processor which limits its fire behavior characteristics to a 5 mph midflame windspeed. Note the maximum flame length of 2.5 feet. The canopy base height (orange line) that would be required for that flame length to initiate crown fire activity would be 3 feet in a dry open condition (lower graph).

GR1 flame length and CBH to initiate crowning in average condition (2/3 cured) with open canopy (15 -30%)



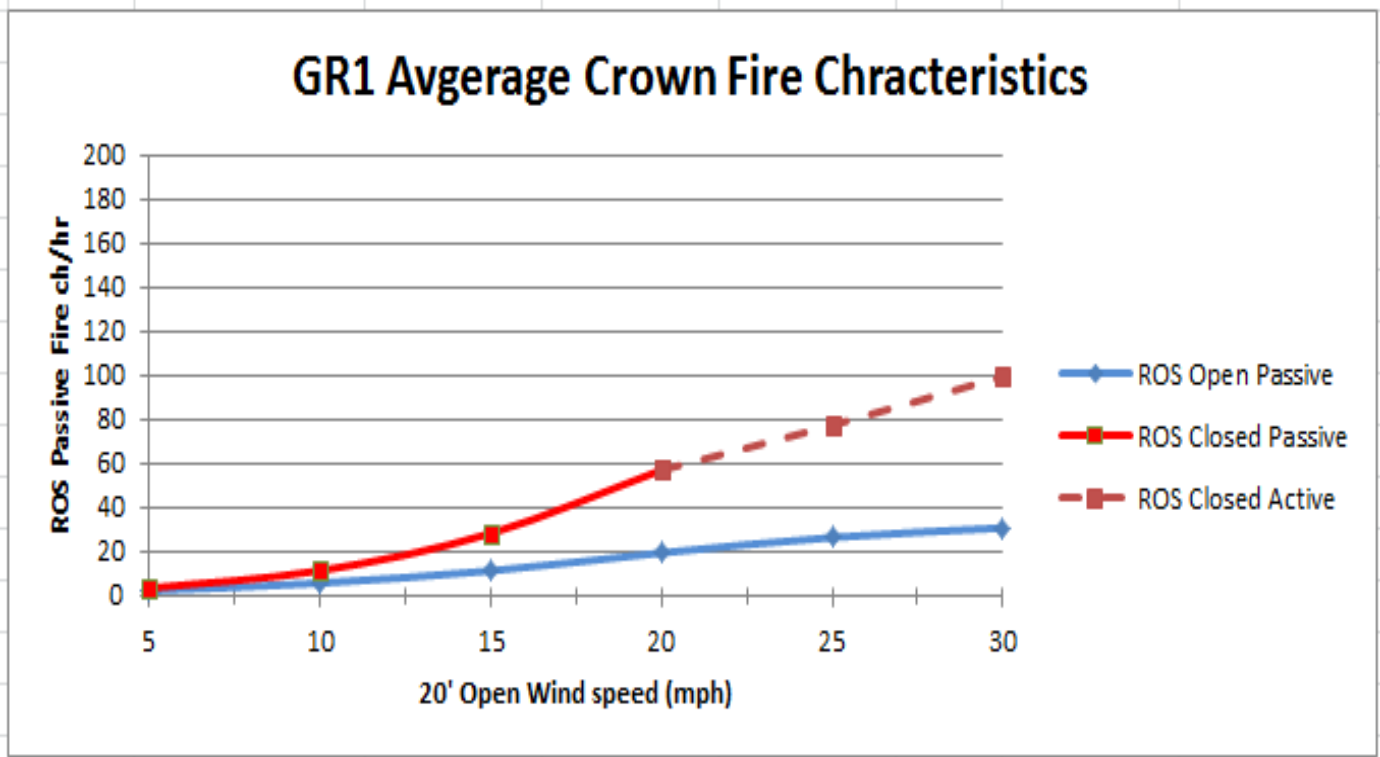
GR1 flame length and CBH to initiate crowning in dry condition (fully cured) with open canopy (15 -30%)



For a moderately closed canopy cover (30 -50%) the midflame windspeeds for flame length would be 3 mph for the low wind (20 mph at 20 ft.) and 5mph for the high wind (30mph at 20 ft.). For a closed canopy cover (>50%) midflame wind would be 2 mph for low and 3 mph for high

If CBH is low enough for the surface fire flame length of the GR1 to initiate torching or passive crown fire activity in the **average** fuel moisture regime the resultant rate of spread are displayed in the chart below.

(Average fuel moisture scenario = 1hr-6%; 10hr-7%; 100hr-8%; herbaceous -- 60%; woody – 90%)



If CBH is low enough for the surface fire flame length of the GR1 to initiate torching or passive crown fire activity in the **dry** fuel moisture regime the resultant rate of spread are displayed in the chart below.

(Dry fuel moisture scenario = 1hr-3%; 10hr-4%; 100hr-5%; herbaceous -- 30%; woody – 60%)

