

BAND APPLICATION RATE

Follow the chemical manufacturer's band width recommendations. In our band application charts, gallons per acre means volume applied to area actually sprayed and, depending on row spacing and width of band, this area is some fraction of the total field. This means that any nozzle will give a much higher volume per acre rate on area actually sprayed in a band than if the same nozzle (with same spacing) is used in a broadcast application.

1. To calculate nozzle flow rate (gpm) for band application from our charts use this formula:

$$\text{gpm} = \text{gpa} \times \text{mph} \times \text{band width (inches)} / 5940$$

Example: Assuming the broadcast rate is 25 gpa, speed is 10 mph, and band width is 7", calculate from formula above the nozzle flow rate in the band:

$$\text{gpm} = 25 \times 10 \times 7 / 5940 = 0.295 \text{ gpm}$$

2. To calculate the band application rate (gpa) for a known flow rate (gpm), use this formula:

$$\text{gpa} = [5940 \times (\text{gpm} / \text{nozzle}) / \text{Band width (in.} \times \text{mph)}] \times \text{band width (in.)} / \text{nozzle spacing (in.)}$$

Example: Assuming flow rate (gpm) is .295 gpm, band width is 7, nozzle spacing is 30", and speed is 10 mph, calculate from formula above the band application rate (gpa)

$$\text{gpa} = [(5940 \times 0.295 \text{ gpm}) / (7 \times 10)] \times (7/30) = 5.84 \text{ gpa}$$