

The Motorblower is the preferred ground equipment for the application of Insecticides. Before it is used it is desirable to know how much 'spray solution' is distributed in a given area.

#### Steps in Calibration

1. Determine the width of the spray swath. A normal spray swath is 20 ft or approximately 7 steps.
2. Determine the length of 20 ft swath in 1 acre, that is,  $43560/20 = 2178$  ft.
3. Determine the total volume of solution to be used per acre (6 gallons or 27.3 liters are usually adequate)
4. Pour a known quantity of water in Motoblower and set outflows adjustment; (a setting of 5 is usually adequate).
5. Start motoblower and set throttle at appropriate engine revolution.
6. **SPRAY FOR A FIXED PERIOD OF TIME (1 min)**
7. Measure water remaining in motoblower tank and determine quantity sprayed.

8. Repeat 5 and 6 three times then determine the average quantity sprayed per minute (say: 1972 mls).

9. Determine the time required to spray 6 gals (27.3 L) at the above setting on 1 acre.

#### Calculations

Since 1972 mls take 1 min to spray, therefore 27276 mls will take  $27276/1972 = 13.8$  mins.

#### Note:

**In spraying 27276 mls or 6 gals of solution in 13.8 mins on 1 acre, one will traverse 2178 ft using a 20 ft swath. Therefore the time required to spray 6 gals of solution (13.8 mins) will be the same time required to cover the liner distance of 2178 ft.**

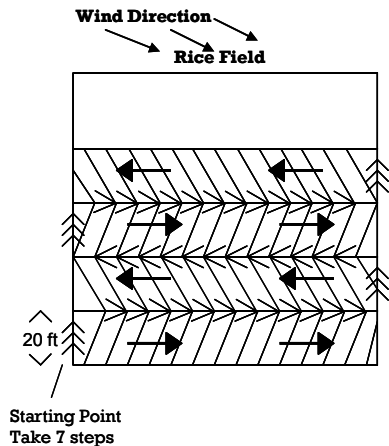
10. Calculate the time required to cover 100 ft while spraying at the above setting. Since 2178 ft are covered in 13.8 mins, Therefore 100ft are covered in  $(13.8\text{mins}/2178\text{ft}) \times 100 = 0.634\text{mins}$   $0.634 \text{ mins} \times 60 \text{ secs} = 38 \text{ secs}$ .

#### Note:

The walking rate required to deliver 27276 mls (6 gals) per acre using a 20 ft spray swath is 100 ft in 38 secs.

#### Determining How to Spray

1. Utilize wind direction speed and engine revolutions to effectively distribute the spray solution over the area to be sprayed.



2. Back the wind to avoid drift in your direction.

## Notes

### Precautions

1. Always wear protective clothing and a respirator when applying insecticides.
2. Avoid direct contact with the insecticide or spray solution when measuring or spraying insecticides.

### Useful Information

1 acre	=	43,560 sq. ft
1 hectare	=	2.47 acres
1 litre	=	1000 mls
1 gallon	=	4546 mls
1 pint	=	568.25 mls



## GUYANA RICE DEVELOPMENT BOARD

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### Calibration of the Motor Blower

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