

4. Secondary Product Distribution

4. Turn the scale vertical and shake it to separate the material. This step usually continues less than two minutes.
5. When the material is fully separated, turn the scale to the horizontal start position.

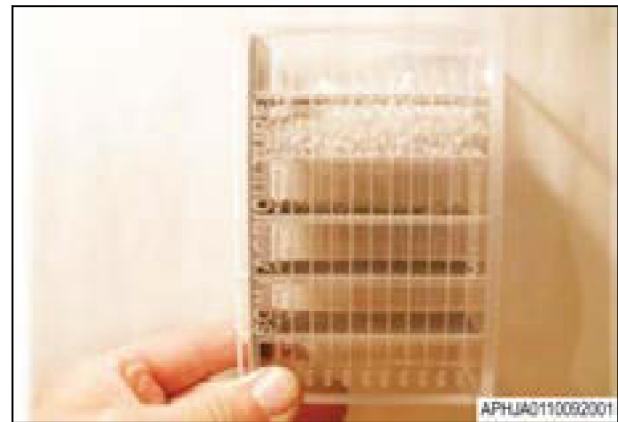


Fig. 15

6. Use the percent of material in each column to calculate the overall SGN of the sample.

**Result**

|                   |                                |
|-------------------|--------------------------------|
| Column A (120)    | 0                              |
| Column B (170)    | 0                              |
| Column C (240)    | 5% of 240 = 12                 |
| Column D (340)    | 90% of 340 = 306               |
| Column E (400>)   | 5% of 400 = 20                 |
| Total (A+B+C+D+E) | 12+306+20 = 338 as average SGN |

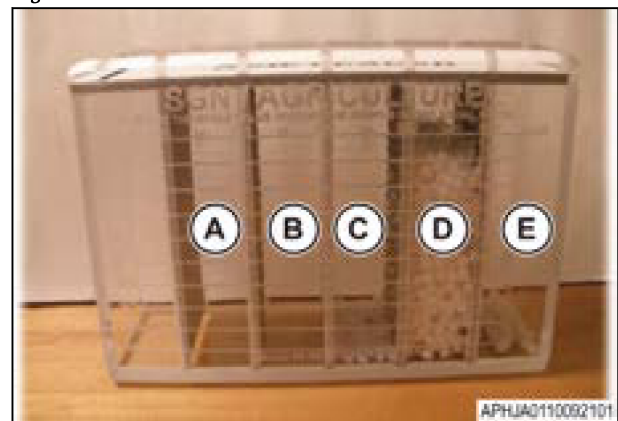


Fig. 16

*Size Grade Number calculation chart example*

7. Use the crush strength example of 3.5 and average SGN of 338 to determine the the maximum spread width in the table.

**Result**

A crush strength of 3.5 and SGN of 338 has a maximum spinner speed of 650 RPM to 700 RPM. It produces a spread width of 85 ft to 100 ft, depending on the spinner height.

| Size grade number granule | Crush strength | Maximum spinner RPM | Flotation machine (spinner height 52 in) Spread width m (ft) | Post machine (spinner height 72 in) Spread width m (ft) |
|---------------------------|----------------|---------------------|--|---|
| 320-400                   | 1              | 600                 | 24 m to 26 m (80 ft to 85 ft)                                | 27 to 29 (90 to 95)                                     |
|                           | 3              | 650-700             | 26 to 27 (85 to 90)  | 29 to 30 (95 to 100)                                    |
|                           | 6              | 750-800             | 27 to 29 (90 to 95)  | 30 to 32 (100 to 105)                                   |
|                           | 8              | 850-900             | 29 to 30 (95 to 100)   | 32 to 33 (105 to 110)                                   |

### 4.2.7 Spread pattern test procedure

#### Procedure

1. Use the data sheets supplied with the kit to document all spreader information and adjustments as necessary.
2. Select a test area that measures a minimum 37 m (120 ft) x 61 m (200 ft) with a 2° and less slope.
3. Do the tests when the wind velocity is less than 8.05 km (5 mph). If there is wind, move parallel (within ± 15 degrees) to the wind direction.
4. Do not fill the spreader more than one hour before the test.
5. At this step of the test, operate the spreader through the collection trays in only one direction.
6. Put a plastic grid into each of the 23 collection trays.
7. Set the blue collection tray in the center of the spreader's path. Put the longest dimension of the tray parallel to the direction of travel. Set a tray on each side 3 m (10 ft) from center, and all subsequent trays on 1.5 m (5 ft) center.
8. For four-wheeled vehicles, set the spreader at the start so the vehicle can straddle the center tray.
9. Engage the spinners before navigating the course. As the vehicle nears the 75' marker before the row of collection trays, engage the conveyor(s). Do not set the conveyor(s) to off until the vehicle nears the second marker.
10. Operate the spreader fully through the course at the correct speed.
11. For three-wheeled vehicles, straddling the center tray is not possible. Put the center collection tray below the vehicle, behind the front tire, with the spreader set at the start.
12. Engage the spinners and conveyor(s) before navigating the course. Do not set the conveyor(s) to off until the vehicle nears the second marker.
13. Operate the spreader fully through the course at correct speeds.
14. **Test Results.** After navigating the course, set the spreader to off, and park in a safe location.
15. Use the funnel to move the contents of each collection tray into its related test tube. Start at one end of the trays and work to the other end.

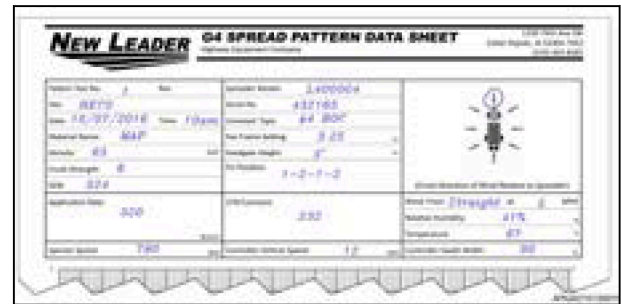


Fig. 17 Spread pattern data sheet

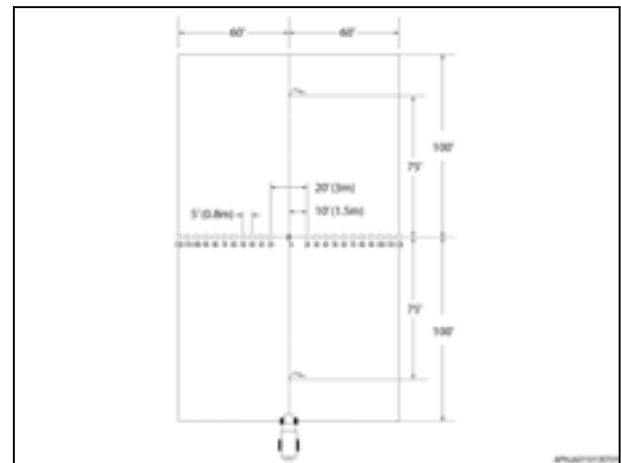


Fig. 18 Four-wheeled vehicles

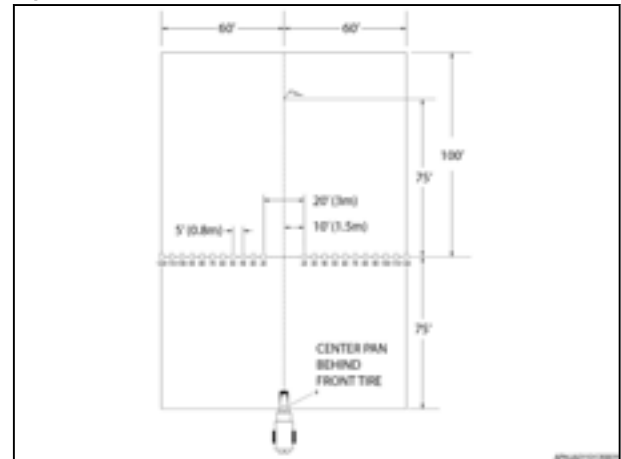


Fig. 19 Three-wheeled vehicles