

# Matching slurry phosphate to field requirement

## Estimating Slurry Nutrient Value from Dry Matter

### Using a Slurry Hydrometer to Estimate Nutrients

Why measure dry matter?

Phosphate and potash levels in slurry can be estimated from dry matter content—the higher the dry matter, the higher the phosphate content.

However, nitrogen is more volatile, making dry matter a less reliable indicator. For an accurate nitrogen measurement, use a lab analysis or an N sensor. These methods also improve phosphate and potash estimates.



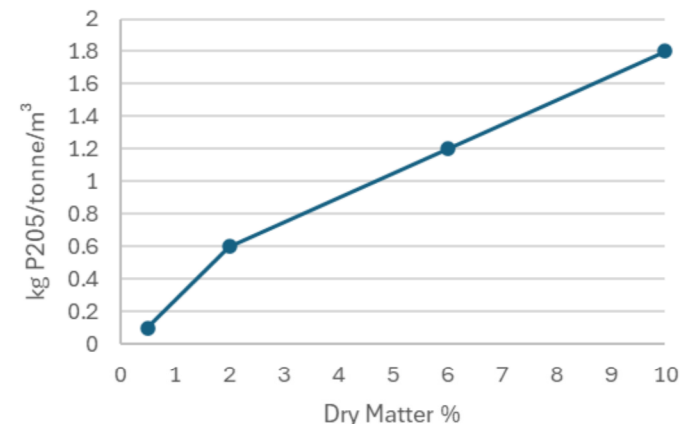
### When Applying Slurry

Consider the following

- If soil P index is 2 or above, use the total phosphate value.
- If soil P index is 1 or 0, you can use the available phosphate value, which is 50% of the total P in slurry.

For a full list of nutrient contents in livestock manures, refer to RB209 Organic Material Section 2 Workbook.

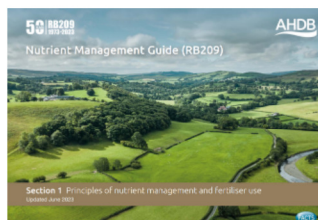
## Phosphate Levels in Slurry Based on Dry Matter Content



## Typical Grassland Phosphate Recommendations based on Soil P Index

| Grass silage          |                        |    |    |    |   |                         |     |                       |     |                       |     |
|-----------------------|------------------------|----|----|----|---|-------------------------|-----|-----------------------|-----|-----------------------|-----|
| Cuts                  | First cut (23 t FW/ha) |    |    |    |   | Second cut (15 t FW/ha) |     | Third cut (9 t FW/ha) |     | Forth cut (7 t FW/ha) |     |
| Soil P index          | 0                      | 1  | 2  | 3  | 4 | 0-2                     | 3-4 | 0-2                   | 3-4 | 0-2                   | 3-4 |
| P requirement kg / ha | 100                    | 70 | 40 | 20 | 0 | 25                      | 0   | 15                    | 0   | 10                    | 0   |

| Grazing grass P requirement |    |    |    |   |
|-----------------------------|----|----|----|---|
| Soil P index                | 0  | 1  | 2  | 3 |
| P requirement kg / ha       | 80 | 50 | 20 | 0 |



Always refer to your nutrient management plan or RB209 for exact workings and use soil results less than 5 years old

### Example field:

**Crop:** Silage first cut, target fresh weight 23 tonnes per ha

**Soil P index:** 2

**P requirement:** 40kg per ha

**Slurry dry matter value:** 6%

**Total P' value:** 1.2 kg per tonne or m3

**Application rate:** 33 tonnes or m3 per ha

### Slurry Hydrometer Method

5 easy steps

**Step 1:** Gain a well mixed representative sample of slurry in a bucket.

**Step 2:** Place you hydrometer in the bucket with the measurement length exposed

**Step 3:** Wait around 3 - 5 min for dry matter reading to show

**Step 4:** Use the graph above to estimate the 'total P' value

**Step 5:** Adjust the rate slurry application according to your field's soil and crop requirement by referring back to your nutrient management plan