

WED = Weedy (Tanpa pengendalian gulma)

O₁₀ = Herbisida Oksifluorfen dengan dosis 1 l ha⁻¹

O₁₅ = Herbisida Oksifluorfen dengan dosis 1,5 l ha⁻¹

O₂₀ = Herbisida Oksifluorfen dengan dosis 2 l ha⁻¹

P₁₀ = Herbisida Pendimethalin dengan dosis 500 g ha⁻¹

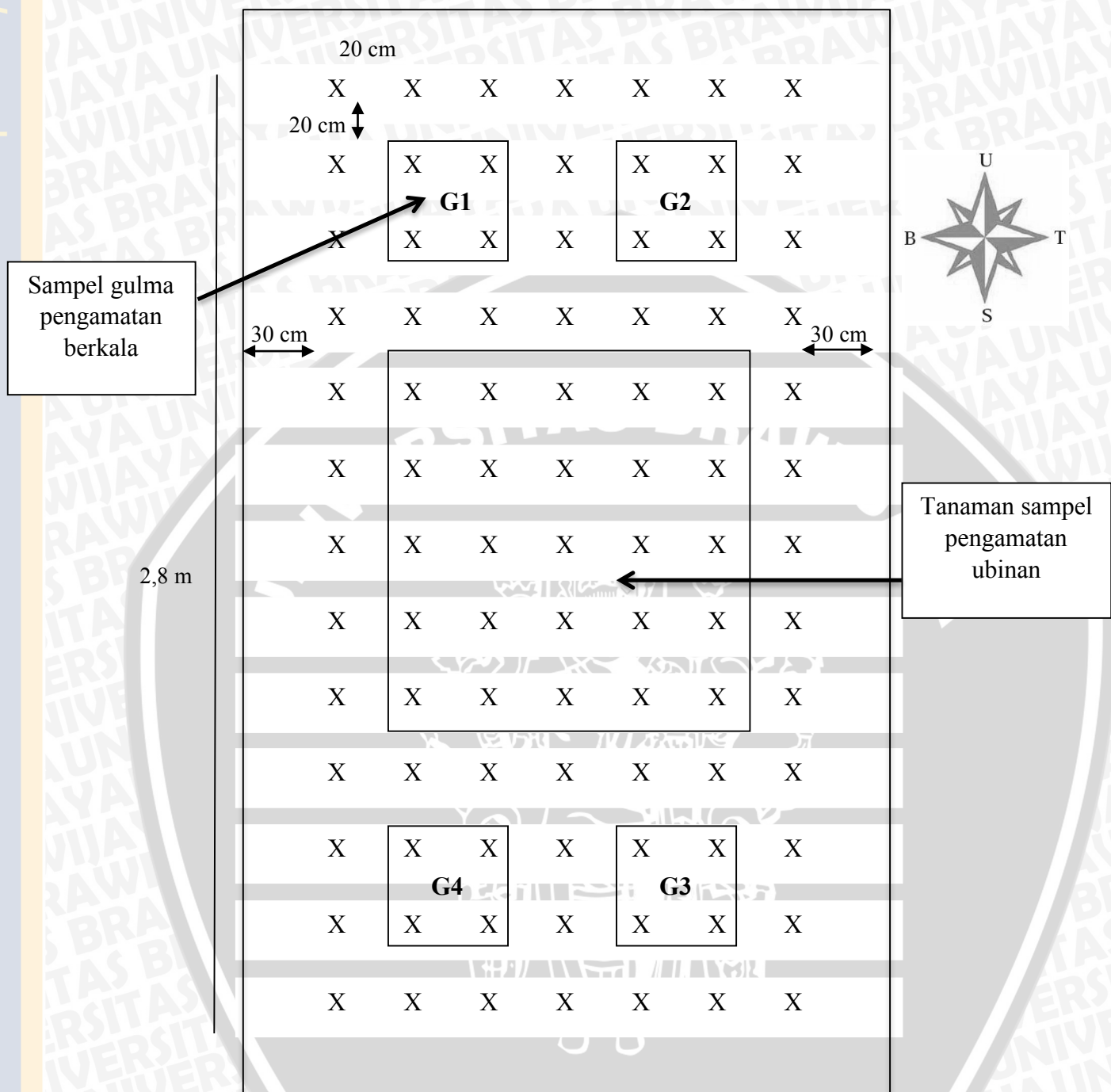
P₁₅ = Herbisida Pendimethalin dengan dosis 1000 g ha⁻¹

P₂₀ = Herbisida Pendimethalin dengan dosis 1500 g ha⁻¹

WFE = Weed Free (Disiang 15, 30, 45 HST)

Gambar 5. Denah Petak Percobaan

1,6 m



Gambar 6. Petak Percobaan dan Pengambilan Sampel

Keterangan:

- | | | | |
|---------------------|------------------------|-------------------|---------|
| X | = Tanaman bawang merah | Panjang Petak | = 2,8 m |
| Jarak tanam | = 20 cm x 20 cm | Lebar Petak | = 1,6 m |
| Petak Gulma | = 40 cm x 40 cm | Jarak antar petak | = 30 cm |
| Jarak antar ulangan | = 30 | | |

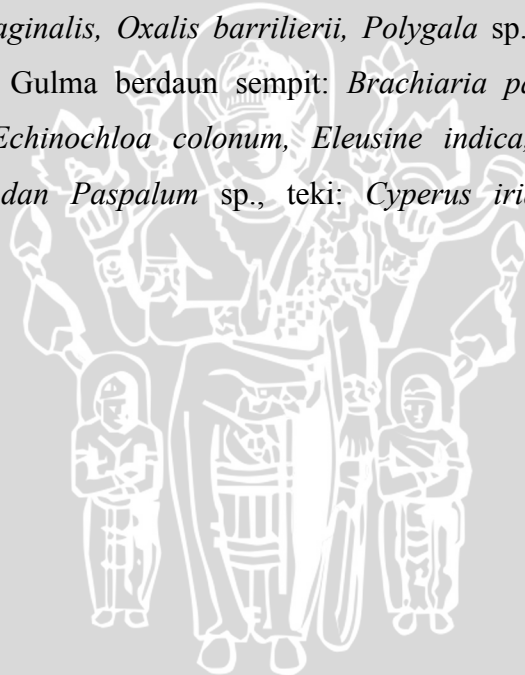


Lampiran 1. Deskripsi Herbisida Oksifluorfen (Ditjen PSP)

Merk Dagang	: Goal 240 EC
Batas Waktu Perijinan	: 6 Oktober 2016
Nama Pemegang Pendaftaran	: PT. Dow AgroSciences Indonesia
Nomor Pendaftaran	: RI. 010311979391
Bahan Aktif	: Oksifluorfen 240 g l ⁻¹
Selektifitas	: Herbisida Selektif
Waktu Aplikasi	: Pra Tumbuh

Untuk mengendalikan gulma pada pertanaman :

- ❖ Bawang merah, kakao, kapas, karet, kedelai, kelapa sawit, padi gogo, padi sawah, teh, ubi kayu dan tebu. Gulma berdaun lebar : *Ageratum conyzoides*, *Amaranthus spinosus*, *Borreria alata*, *Borreria* sp., *Clibadium surinamense*, *Marsilea crenata*, *Mimosa invisa*, *M. Pudica*, *Monochoria vaginalis*, *Oxalis barrilieri*, *Polygala* sp., *Portulaca oleracea* dan *Synedrella nodiflora*. Gulma berdaun sempit: *Brachiaria paspaloides*, *Digitaria cliaris*, *D. Sanguinalis*, *Echinochloa colonum*, *Eleusine indica*, *Ottochloa nodosa*, *Paspalum scrobiculatum* dan *Paspalum* sp., teki: *Cyperus iria*, *C. rotundus* dan *Fimbristylis littoralis*.

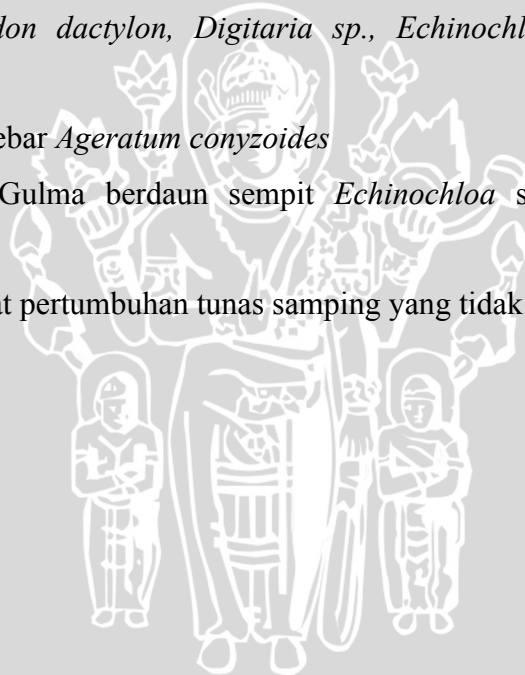


Lampiran 2. Deskripsi Herbisida Pendimethalin (Ditjen PSP)

Merk Dagang	: Prowl 330 EC
Batas Waktu Perijinan	: 18 Februari 2013
Nama Pemegang Pendaftaran	: PT BASF Indonesia
Nomor Pendaftaran	: RI. 990/1-2008/T
Bahan Aktif	: Pendimethalin 330 g l ⁻¹
Selektifitas	: Herbisida Selektif
Tipe Translokasi dalam Tumbuhan	: Sistemik
Waktu Aplikasi	: Pra dan Pasca Tumbuh

Untuk mengendalikan gulma pada pertanaman :

- Kedelai dan Bawang Merah: Gulma berdaun lebar *Ageratum conyzoides*, *Alternanthera philoxeroides*, *Amaranthus spinosus*, *Erectites Valerianifolia*. Gulma berdaun sempit *Cynodon dactylon*, *Digitaria sp.*, *Echinochloa colona*, *Eleusine indica*;
- Tebu: Gulma berdaun lebar *Ageratum conyzoides*
- Padi sawah (tabela): Gulma berdaun sempit *Echinochloa sp.* *Teki Fimbristylis littoralis*
- Tembakau: menghambat pertumbuhan tunas samping yang tidak diinginkan.



Lampiran 3. Perhitungan Pupuk pada Tanaman Bawang Merah

Perhitungan pupuk kandang 20 t ha⁻¹.

$$\begin{aligned}
 - \text{Kebutuhan pupuk lahan}^{-1} &= \frac{\text{Luas Lahan}}{10000} \times \text{pupuk rekomendasi} \\
 &= \frac{26 \times 8}{10000} \times 2000 \text{ kg ha}^{-1} \\
 &= 41,6 \text{ kg}
 \end{aligned}$$

Perhitungan pupuk Urea pada tanaman bawang merah

$$\begin{aligned}
 - \text{Dosis } 500 \text{ kg ha}^{-1} \\
 \text{Dosis per petak} &= \frac{\text{Luas Lahan}}{10000} \times \text{pupuk rekomendasi} \\
 &= \frac{1,6 \times 2,8}{10000} \times 500 \text{ kg ha}^{-1} \\
 &= 224 \text{ g/petak}
 \end{aligned}$$

$$\text{Dosis per lubang tanam} = \frac{224}{91} = 2,46 \text{ g/lubang}$$

Perhitungan pupuk SP 36 pada tanaman bawang merah

$$\begin{aligned}
 - \text{Dosis } 300 \text{ kg ha}^{-1} \\
 \text{Dosis per petak} &= \frac{\text{Luas Lahan}}{10000} \times \text{pupuk rekomendasi} \\
 &= \frac{1,6 \times 2,8}{10000} \times 300 \text{ kg ha}^{-1} \\
 &= 134 \text{ g/petak}
 \end{aligned}$$

$$\text{Dosis per lubang tanam} = \frac{134}{91} = 1,47 \text{ g/lubang}$$

Perhitungan pupuk KCL pada tanaman bawang merah

$$\begin{aligned}
 - \text{Dosis } 200 \text{ kg ha}^{-1} \\
 \text{Dosis per petak} &= \frac{\text{Luas Lahan}}{10000} \times \text{pupuk rekomendasi} \\
 &= \frac{1,6 \times 2,8}{10000} \times 200 \text{ kg ha}^{-1} \\
 &= 89 \text{ g/petak}
 \end{aligned}$$

$$\text{Dosis per lubang tanam} = \frac{89}{91} = 0,97 \text{ g/lubang}$$

Lampiran 4. Perhitungan Kebutuhan Herbisida

a. Herbisida Oksifluorfen

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\text{Dosis Herbisida 1 l ha}^{-1} = 1000 \text{ ml} : 10.000 \text{ m}^2 = 0,1 \text{ ml m}^{-2}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{herbisida} \\ &= (1,6\text{m} \times 2,8\text{m}) \times 0,1 \text{ ml m}^{-2} \\ &= 4,48 \text{ m}^2 \times 0,1 \text{ ml m}^{-2} \\ &= 0,448 \text{ ml} \end{aligned}$$

$$\text{Konsentrasi formulasi} = \frac{\text{Kebutuhan Herbisida Oksifluorfen}}{\text{Volume Semprot}}$$

$$\begin{aligned} &= 1000 \text{ ml ha}^{-1} : 500 \text{ l ha}^{-1} \\ &= 2 \text{ ml/l air} \end{aligned}$$

$$\text{Kebutuhan air/petak} = \frac{\text{Kebutuhan Herbisida Oksifluorfen per petak}}{\text{Konsentrasi formulasi}}$$

$$\begin{aligned} &= 0,448 \text{ ml} : 2 \text{ ml/l air} \\ &= 0,224 \text{ liter air/petak} \end{aligned}$$

b. Herbisida Oksifluorfen

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\text{Dosis Herbisida 1,5 l ha}^{-1} = 1500 \text{ ml} : 10.000 \text{ m}^2 = 0,15 \text{ ml m}^{-2}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{herbisida} \\ &= (1,6\text{m} \times 2,8\text{m}) \times 0,15 \text{ ml m}^{-2} \\ &= 4,48 \text{ m}^2 \times 0,15 \text{ ml m}^{-2} \\ &= 0,672 \text{ ml} \end{aligned}$$

$$\text{Konsentrasi formulasi} = \frac{\text{Kebutuhan Herbisida Oksifluorfen}}{\text{Volume Semprot}}$$

$$\begin{aligned} &= 1500 \text{ ml ha}^{-1} : 500 \text{ l ha}^{-1} \\ &= 3 \text{ ml/l air} \end{aligned}$$

$$\text{Kebutuhan air/petak} = \frac{\text{Kebutuhan Herbisida Oksifluorfen per petak}}{\text{Konsentrasi formulasi}}$$

$$\begin{aligned} &= 0,672 \text{ ml} : 3 \text{ ml/l air} \\ &= 0,224 \text{ liter air/petak} \end{aligned}$$

c. Herbisida Oksifluorfen

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\text{Dosis Herbisida } 2 \text{ l ha}^{-1} = 2000 \text{ ml} : 10.000 \text{ m}^2 = 0,2 \text{ ml m}^{-2}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{herbisida} \\ &= (1,6 \text{ m} \times 2,8 \text{ m}) \times 0,2 \text{ ml m}^{-2} \\ &= 4,48 \text{ m}^2 \times 0,2 \text{ ml m}^{-2} \\ &= 0,896 \text{ ml} \end{aligned}$$

$$\begin{aligned} \text{Konsentrasi formulasi} &= \frac{\text{Kebutuhan Herbisida Oksifluorfen}}{\text{Volume Semprot}} \\ &= 2000 \text{ ml ha}^{-1} : 500 \text{ l ha}^{-1} \\ &= 4 \text{ ml/l air} \end{aligned}$$

$$\begin{aligned} \text{Kebutuhan air/petak} &= \frac{\text{Kebutuhan Herbisida Oksifluorfen per petak}}{\text{Konsentrasi formulasi}} \\ &= 0,896 \text{ ml} : 4 \text{ ml/l air} \\ &= 0,224 \text{ liter air/petak} \end{aligned}$$

d. Herbisida Pendimethalin

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\begin{aligned} \text{Dosis herbisida } 500 \text{ g ha}^{-1} &= \text{g b.a ha}^{-1} \text{ (gram bahan aktif per ha)} \\ &= 500 \text{ g} : 330 \text{ g} \\ &= 1,5 \text{ l ha}^{-1} \end{aligned}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{dosis herbisida} \\ &= 4,8 \text{ m}^2/10.000 \text{ m}^2 \times 1,5 \\ &= 0,00072 \text{ l/petak} = 0,7 \text{ ml/petak} \end{aligned}$$

$$\begin{aligned} \text{Konsentrasi formulasi} &= \frac{\text{Kebutuhan herbisida per ha}}{\text{volume semprot}} \\ &= 0,7 : 500 \\ &= 0,0014 \end{aligned}$$

$$\begin{aligned} \text{Kebutuhan air/petak} &= \frac{\text{Kebutuhan Herbisida Pendimethalin per petak}}{\text{Konsentrasi formulasi}} \\ &= 0,7 \text{ ml} : 0,0014 \\ &= 500 \text{ ml/petak} \end{aligned}$$

e. Herbisida Pendimethalin

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\begin{aligned} \text{Dosis herbisida } 1000 \text{ g ha}^{-1} &= \text{g b.a ha}^{-1} \text{ (gram bahan aktif per ha)} \\ &= 1000 \text{ g} : 330 \text{ g} \\ &= 3,03 \text{ l ha}^{-1} \end{aligned}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{dosis herbisida} \\ &= 4,8 \text{ m}^2/10.000 \text{ m}^2 \times 3,03 \\ &= 0,0014 \text{ l/petak} = 1,4 \text{ ml/petak} \end{aligned}$$

$$\text{Konsentrasi formulasi} = \frac{\text{Kebutuhan herbisida per ha}}{\text{volume semprot}}$$

$$= 1,4 : 500$$

$$= 0,0028$$

$$\text{Kebutuhan air/petak} = \frac{\text{Kebutuhan Herbisida Pendimethalin per petak}}{\text{Konsentrasi formulasi}}$$

$$= 1,4 \text{ ml} : 0,0028$$

$$= 500 \text{ ml/petak}$$

f. Herbisida Pendimethalin

$$\text{Luas 1 ha} = 10.000 \text{ m}^2$$

$$\text{Luas petak percobaan} = 1,6 \text{ m} \times 2,8 \text{ m} = 4,48 \text{ m}^2$$

$$\text{Volume semprot} = 500 \text{ l ha}^{-1} = 500.000 \text{ ml}/10.000 \text{ m}^2$$

$$\begin{aligned} \text{Dosis herbisida } 1500 \text{ g ha}^{-1} &= \text{g b.a ha}^{-1} \text{ (gram bahan aktif per ha)} \\ &= 1500 \text{ g} : 330 \text{ g} \\ &= 4,54 \text{ l ha}^{-1} \end{aligned}$$

$$\begin{aligned} \text{Kebutuhan herbisida/petak} &= \text{luas petak} \times \text{dosis herbisida} \\ &= 4,8 \text{ m}^2/10.000 \text{ m}^2 \times 4,54 \\ &= 0,0021 \text{ l/petak} = 2,1 \text{ ml/petak} \end{aligned}$$

$$\text{Konsentrasi formulasi} = \frac{\text{Kebutuhan herbisida per ha}}{\text{volume semprot}}$$

$$= 2,1 : 500$$

$$= 0,0042$$

$$\text{Kebutuhan air/petak} = \frac{\text{Kebutuhan Herbisida Pendimethalin per petak}}{\text{Konsentrasi formulasi}}$$

$$= 2,1 \text{ ml} : 0,0042$$

$$= 500 \text{ ml/petak}$$