



# HARDEN-MURRUMBURRAH LAND CARE GROUP SUSTAINABLE FARMING DATA BASE 1999

## Field Inspection Timetable

Record the week that you sow in the first box, and then add the specified number of weeks to calculate dates for Field Inspections 1, 2, 3 and 4.

Sowing Date

add 2 to 4 weeks

**Field Inspection 1**  
(1-2 weeks after emergence)

add 3 more weeks

Seedling No.  
Sowing depth  
Weed Counts  
Insects

**Field Inspections 2**  
(Early July)

add 4 - 5 more weeks

Nitrate Level

**Field Inspection 3**  
(Mid August)

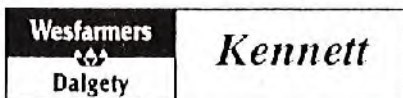
add 8 more weeks

No. of Tillers  
Nitrate Level

**Field Inspection 4**  
(Mid October to Early November)

Cereal heads  
Weed Counts  
Insects and Disease

**Hang this timetable somewhere obvious  
- on the wall in office, or the fridge door -  
A place where you won't forget it!!!**



# HARDEN-MURRUMBURRAH LAND CARE GROUP

## SUSTAINABLE FARMING DATA BASE SURVEY 1999

Please read through the programme, and if you are unsure about any questions, or how to use the LookUp Tables, please phone your local group contact person.

Owner's Name

Address

Postcode

Phone

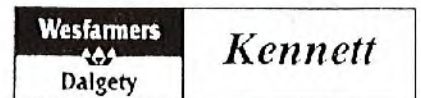
RAINFALL	J	F	M	A	M	J	J	A	S	O	N	D	
(mm)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1999

Your local group contact person is:

Return this form to your group contact person as soon as possible after harvest - preferably before the 20th January, 2000.

or

Louise Hufton, HLCCG Co-Ordinator  
"Naranghi", Harden, 2587



**Part A**

**HISTORICAL DATA**

1. Paddock Name:  Area (ha)

2. Soil Type:

Granite  Basalt

3. Waterlogging at % of paddock area.

4. Soil Test Results - (Collected February '99 preferably) Date

	0-10CM	
pH (1:5 Water)	<input type="text"/>	
pH (1:5 CaCl <sub>2</sub> )	<input type="text"/>	
Organic Carbon %C	<input type="text"/>	A1 Saturation% <input type="text"/>
Phosphorus (Colwell) mg/kg	<input type="text"/>	
Cation Exch. Cap. meq/100g	<input type="text"/>	

DEPTH	0-60CM	0-90CM	
NH <sub>4</sub>	<input type="text"/>	<input type="text"/>	Ammonia N
No <sub>3</sub>	<input type="text"/>	<input type="text"/>	Nitrate N

5. Lime History

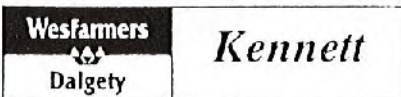
Date Limed 1  Rate t/ha   
 2

6. Paddock 1998 History

1st Cultivation Date

Sowing Date

	Rate	Product
Fertilizer	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>





## Part A

7. Weeds or Disease Present - in Spring, 1997 that effected yield in 1998

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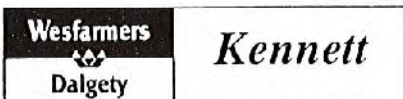
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8. Paddock History: (Insert crop type or pasture and Yield if known. Use Lookup Table 1)

	1994	1995	1996	1997	1998
Crop Type or Pasture					
Yield					

9. Broad Cultivation History in Current Crop Rotation

	'98	'97	'96	'95
1. Burnt/Direct Drilled				
2. Direct Drilled/Stubble Retained				
3. Burnt/Worked Once				
4. Stubble Retained/Worked Once				
5. Burnt and Worked more than once				
6. Stubble Retained and Worked more than once				



## Part B. 1999 Paddock Operations

1. Current Year; Paddock Preparation. (Tick appropriate Boxes)

- 1. Sprayed/Grazed
- 2. Stubble - Incorporated
- 3. Stubble - Bash/Mulched
- 5. Stubble - Baled
- 6. Stubble - Burnt

2. Cultivation Preparation  (including predrilled N as Urea or Gas)

Depth of Cultivating

Was cultivation or application of Pre N conducted to break up suspected Hardpan?

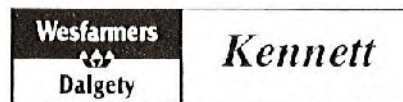
Yes/No

Sowing

width of Point

One Pass Airseeder	<input type="checkbox"/>	<input type="checkbox"/>
Airseeder	<input type="checkbox"/>	<input type="checkbox"/>
Combine (tynes)	<input type="checkbox"/>	<input type="checkbox"/>
Combine (discs)	<input type="checkbox"/>	<input type="checkbox"/>

- Prickle Chain
- Finger Harrows
- Covering Harrows
- Press Wheels
- Roller
- Other



## Part B



### 3. Sowing

Crop

Variety

Sowing Rate (kg/ha)

Sowing Date

Type

Rate

Seed Dressing (IF USED)



### 4. Fertilisers

	Product	Date	kg/ha
Pre-Sowing	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
Sowing	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>
Post-Sowing	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>

### 5. Chemical applications

Use Lookup Table 2 - Enter Chemical Number, Date of application and rate.

	Date	Product	Rate	Product	Rate	Main Target Weeds
Fallow Spray						
1.						
2.						
3.						
Pre Sowing						
1.						
2.						
3.						
Post Sowing						
1. Pre-Emergent						
2.						
3.						



# Part B Field Inspection 1

1-2 Week After Emergence

## Plant Population, Sowing Depth, Weed Count, Insects

Date Inspected

Seedling no. per metre of row..   
*(Average of twenty counts)*

Row spacing (cm) .....

*Optional Calculation:*

*Plant Population = (seedling No. per metre row x 100) / row spacing*

=  plants per square metre

Sowing Depth (cm).....

*(Actual seed depth below soil surface - not combine depth setting)*

### Weeds in crop 1 - 2 weeks after emergence.

Record the names of the weeds in the first quadrat, and then for each weed tick one of the four plant density options. Repeat the procedure for another 4 quadrates, adding new weeds to the list when necessary.

Weed Type	No. of plants/m <sup>2</sup>			
	0-5	6-20	21-100	>100

Please see page 6. If spraying.  
If insects are present at this stage, fill in the Insect boxes in Field Inspection 3.

Wesfarmers  
Dalgety

Kennett

R. & N. GEBHARDT

Marketing, Transport, Storage of Grains



IAMA

CHANDLERS IAMA

PIVOT

ALCORN'S  
FERTILIZERS

1 BUNDARBO ST. HARDEN

PIVOT  
Agriculture

**Part B**  
**Field Monitoring**  
**Field Inspection 2**



**Mid August**  
**Tillering, Laterals and Stem Elongation**

Date of completion of tillering for cereals

No. of tillers, per plant   
*(Average to twenty samples)*

Nitrate Level	Growth Stage	Meter Used
<input type="text"/> ppm	No. of leaves <input type="text"/>	<input type="text"/>
<input type="text"/> Date Collected	No. of Tillers <input type="text"/>	

NIR Test

Growth Stage	% Nitrogen	% Fraction
No. of leaves <input type="text"/>	<input type="text"/>	<input type="text"/>
No. of tillers <input type="text"/>		

- \*Note if adding fertiliser, complete table on page 6.
- \* Do inspection for Rizoctonia Infection at this time and fill in the Rizoctonia Section on page 10.

**Field Inspection 3**  
**Mid October to early November**  
**No of heads and Weeds present**

Flowering Date

No. of head, per plant   
*(Average for twenty samples)*

Weeds in crop at flowering  Date of inspection   
*(procedure same as the weed count in Field Inspection 1)*

Weed Type	No. of plants/m <sup>2</sup>			
	0-5	6-20	21-100	>100

*Not Present*  *Please see page 6 if spraying*



# Part C

Field Monitoring

## Field Inspection 3 Insects and Diseases

*Refer to Lookup Tables on how to assess the severity and extent of damage*

Inspection Date

Examine the plants in 0.5m of row at 10 sites  
Insect Pests

Present

Not Present

*Tick one box only*

Not Checked

Insects present  
(select from Lookup Table 9)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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No. of plants affected  
(select from Lookup Table 6)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Severity of Damage (%)  
(select from Lookup Table 7)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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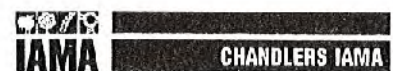
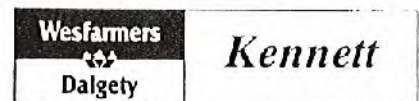
Area of Crop Affected  
(select from Lookup Table 8)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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*If treated complete Chemical Applications.*

*Dig up 20 plants across the paddock*

		Take All	Rhizoctonia	Eyespot
<b>Root Diseases</b>	Present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not Present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not Checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No. of plants affected (select from Lookup Table 6)		<input type="text"/>	<input type="text"/>	<input type="text"/>
Severity of Damage (%) (select from Lookup Table 10)		<input type="text"/>	<input type="text"/>	<input type="text"/>
Area of Crop Affected (select from Lookup Table 8)		<input type="text"/>	<input type="text"/>	<input type="text"/>



## Part C

Field Monitoring

# Field Inspection 3

Insects and Diseases



Examine the plants in 0.5m of row at 10 sites  
Foliar Diseases and Frost

Present

Not Present

Not Checked

*Tick one box only*

Foliar Disease present  
(select from Lookup Table 5)

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No. of plants affected  
(select from Lookup Table 6)

--	--	--	--

Severity of Damage (%)  
(select from Lookup Table 7)

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Area of Crop Affected  
(select from Lookup Table 8)

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## Part D

### Preharvest Field Conditions and Yield Information

#### 6. Yield

Harvest Yield (t/ha)

Protein (%)

AWB Grade

Total Tonnes

1. Any Particular problems with paddock? \_\_\_\_\_

\_\_\_\_\_

2. Your estimate of factor most limiting yield in this paddock? \_\_\_\_\_

\_\_\_\_\_

3. Do you feel your wheat yield are  increasing  static  falling? \_\_\_\_\_

\_\_\_\_\_



# LOOKUP TABLES

## LOOKUP TABLES 1, CROPS AND PASTURES

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Wheat</li> <li>2. Barley</li> <li>3. Oats</li> <li>4. Lupins</li> <li>5. Fodder Rape</li> <li>6. Canola</li> </ul> | <ul style="list-style-type: none"> <li>7. Triticale</li> <li>8. Chem. Fallow</li> <li>9. Mech Fallow</li> <li>10. Pasture Grass Dominate</li> <li>11. Pasture Legume Dominate</li> <li>12. Other</li> </ul> |
|--|---|

## LOOKUP TABLE 2, CHEMICALS HERBICIDES

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>H 1. 2,4D Amine (L)</li> <li>H 2. 2,4D Estel (L)</li> <li>H 3. Ally (g)</li> <li>H 4. Atrazine (l)</li> <li>H 5. Avadex (L)</li> <li>H 6. Amber Post (L)</li> <li>H 7. Banvel (L) (Dicamba)</li> <li>H 8. Banvel M(L) (Dicamba + MCPA)</li> <li>H 9. Barrel (L) (MCPA + Bromoxynil Dicamba)</li> <li>H 10. Brodal (L)</li> <li>H 11. Bucril 200 (L) (Bromoxynil)</li> <li>H 12. Bucril MA (L) (Bromoxynil + MCPA)</li> <li>H 13. Diuron (L)</li> <li>H 14. Dual (L)</li> <li>H 15. Fusilade (L)</li> <li>H 16. Glean (g)</li> <li>H 17. Goal (L)</li> <li>H 18. Gramoxone (L)</li> <li>H 19. Hoegrass (L)</li> <li>H 20. Igram (L)</li> <li>H 21. Jaguar (L)</li> <li>H 22. Logram (g)</li> </ul> | <ul style="list-style-type: none"> <li>H 23. Lontrel (L)</li> <li>H 24. MCPA 500 (L)</li> <li>H 25. LVE MCPA (L) (MCPA-Ester)</li> <li>H 26. Puma (L)</li> <li>H 27. Pursuit (L)</li> <li>H 28. Round-up (L) Glyphosate</li> <li>H 29. Sencor</li> <li>H 30. Sertin (L)</li> <li>H 31. Simazine (L)</li> <li>H 32. Sprayseed (L)</li> <li>H 33. Targa (L)</li> <li>H 34. Tigrex (L)</li> <li>H 35. Trifluralin (L) (Treflan)</li> <li>H 36. Verdict (L)</li> <li>H 37. Tristar</li> <li>H 38. Agtryne MA</li> <li>H 39. Touchdown</li> <li>H 40. Eclipse</li> <li>H 41. Broadstrike</li> <li>H 42. Topik</li> <li>H 43. Select</li> <li>H 44. Other.....</li> </ul> |
|--|---|

## LOOKUP TABLE 3, INTECTICIDES

- I 1. Decis EC (L)
- I 2. Decis ULV (L)
- I 3. Dumethoate (L) (Rogor)
- I 4. Dominex EC (L)
- I 5. Dominex ULV (L)
- I 6. Fastac EC (L)
- I 7. Fastac ULV (L)
- I 8. Imidan (L)
- I 9. Karate EC (L)
- I 10. Karate ULV (L)
- I 11. Le-Mat (L)
- I 12. Lorsban (L)
- I 13. Supra-cide (L)
- I 14. Thiodan (L) (Endosulfan)
- I 15. other.....

## LOOKUP TABLE 4, FUNGICIDES

- F 1. Benlate (g)
- F 2. Dithane (L)
- F 3. Mancozeb (g)
- F 4. Manzate (g)
- F 5. Sumislex (L)
- F 6. Polyram DF
- F 7. Folicur
- F 8. Spin
- F 9. Baylaton
- F 10. Tilt
- F 11. Other.....



**LOOKUP TABLE 5, Cereal Foliar Diseases and Frost Present**

- |                              |                    |                |
|------------------------------|--------------------|----------------|
| 1. Stripe rust               | 5. Eyespot lodging | 9. Leaf rust   |
| 2. Stem rust                 | 6. Powdery mildew  | 10. Frost      |
| 3. Smut                      | 7. Leaf scald      | 11. Other..... |
| 4. Barley yellow dwarf virus | 8. Septoria        |                |

**LOOKUP TABLE 6**

**No of Plants affected**

- |   |   |
|---|---|
| 1. Little or no effect, 0-5% of plants affected | For cereal root, diseases dig up 20 plants and score the number of plants affected. For all other checks determine disease/insect damage at 10 x 0.5m row sites and average the scores from these 10 sites. |
| 2. Light, 6-25% of plants affected              |   |
| 3. Medium, 26-50% of plants affected            |   |
| 4. Heavy, more than 50% of plants affected      |   |

**LOOKUP TABLE 7**

**Severity of Damage**

- |   |  |
|---|--|
| 1. Little or no effect, 0-5% severity of damage | For cereal root, diseases see Lookup Table 10, For all other checks determine disease/insect damage at 10 x 0.5m row sites and average the scores from these 10 sites. |
| 2. Light, 6-25% severity of damage.             |  |
| 3. Medium, 26-50% severity of damage.           |  |
| 4. Heavy, more than 50% severity of damage.     |  |

**LOOKUP TABLE 8**

**Area of Crop Affected**

- |  |   |
|--|---|
| 1. Little or no effect, 0-5% of total area affected. | Estimate the total area of the paddock affected by the disease (insect or pest) |
| 2. Light, 6-25% of total area affected.              |   |
| 3. Medium, 26-50% of total area affected.            |   |
| 4. Heavy, more than 50% of total area affected.      |   |

**LOOKUP TABLE 9**

**Insect Pest Present**

- |                    |                 |   |
|--------------------|-----------------|---|
| 1. Earth Mite      | 5. Lucerne Flea | At ten sites in the paddock, determine whether any of these (or any other) insects are present. |
| 2. Pasture Loopers | 6. Army worm    |   |
| 3. Heliothis       | 7. Slugs        |   |
| 4. Cowpea aphid    | 8. other.....   |   |

**LOOKUP TABLE 10**

- |  |   |
|--|---|
| Eyespot - Bio-Assay:-Need based on paddock history.                  | Severity of damages for Cereal Root Diseases                                |
| <b>TakeAll severity</b>  | <b>Rhizoctonia Severity</b>   |
| 0. None - No evidence of Take All                                    | 0. None - No evidence of Rhizoctonia  |
| 1. Slight - 1 or 2 roots have lesions                                | 1. Slight - Lesions on up to 25% of roots                                   |
| 2. Moderate - 3 or 4 roots have lesions                              | 2. Moderate - Lesions on 26-50% of roots, up to 25% of roots shortened.     |
| 3. Severe - 5 roots or more have lesions, stem bases often blackened | 3. Severe - Lesions on more than 50% of roots up to 50% of roots shortened. |

