

**AGRICULTURAL RESOURCE
MANAGEMENT SURVEY
BARLEY
PRODUCTION PRACTICES and
COSTS REPORT
for 2003**

RESPONDENT BOOKLET

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The time required to complete this information collection is estimated to average 65 minutes per response for the Barley Production Practices and Costs Report.

REASONS FOR SEED VARIETY

Section B, item 12c

- 1 Increase yield?
- 2 Enhanced protein content?
- 3 Disease resistance?
- 4 Insect resistance?
- 5 Drought resistance?
- 6 Malting quality?
- 7 Not chosen for any of the above reasons

FERTILIZER / PESTICIDE APPLICATION METHODS

Section C, Column 6

&

Section D, Column 9

- 1 BROADCAST, GROUND WITHOUT INCORPORATION
- 2 BROADCAST, GROUND WITH INCORPORATION
- 3 BROADCAST, BY AIR
- 4 IN SEED FURROW
- 5 IN IRRIGATION WATER
- 6 CHISEL/INJECTED OR KNIFED IN
- 7 BANDED/SIDEDRESSED IN OR OVER ROW
- 8 FOLIAR OR DIRECTED SPRAY
- 9 SPOT TREATMENTS (SECTION D ONLY)

Section C, Item 4

Common Fertilizers and Their Percent Analysis

[Enumerator Note: *If Respondent cannot report the formulation for Section C, item 4, enter the formulations below.*]

Name	FORM	Percent Active Ingredients			RANGE	RANGE
		N	P ₂ O ₅	K ₂ O		
Ammonium metaphosphate	D	12	51	–		
Ammonium nitrate	D	32	–	–	32-34%N	
Ammonium phosphate	D	11	48	--		
Ammonium phosphate nitrate	D	27	14	–	14-15%P	
Ammonium phosphate sulfate (APS)	D	16	20	–	13-16%N	20-39%P
Ammonium polyphosphate (APP)	L	10	34	–	10-11%N	34-37%P
Ammonium polysulfide (Ammonium Sulfate)	L	20	–	--	20-21%N	
Ammonium sulfate nitrate	D	21	–	–	20-26%N	
Ammonium thiosulfate solution	L	12	–	--		
Anhydrous ammonia	G	82	–	--		
Aqua ammonia (Ammonium Hydroxide) . .	L	20	–	–	16-30%N	
Calcium ammonium nitrate	D	15	–	–	15-16%N	
Diammonium phosphate sulfur	D	16	40	–	15-16%N	39-41%P
Diammonium phosphate (DAP)	D	18	46	–	16-21%N	46-53%P
Mixed fertilizer	D					
		2	6	12		
		3	9	18		
		3	10	30		
		5	10	15		
		5	10	30		
		5	15	30		
		6	24	24		
		8	24	24		
		9	18	9		
		10	34	--		
		11	37	--		
Monoammonium phosphate (MAP)	D	11	52	–	11-13%N	48-62%P
Nitrogen solutions	L	28	–	–	7-58%N	
Phosphoric acid	L	–	54	–	2-75%P	
Potassium chloride (Muriate of potash) . .	D	–	–	60	60-62%K	
Potassium magnesium sulfate	D	–	–	22		
Potassium metaphosphate	D	–	55	37	55-57%P	37-38%K
Potassium nitrate	D	13	–	44		
Potassium orthophosphate	D	–	45	40	30-60%P	30-50%K
Potassium polyphosphate	L	–	50	35	40-60%P	22-48%K
Potassium sodium nitrate	D	15	–	14	14-15%K	
Potassium solutions	L	–	–	14	13-15%K	
Potassium sulfate	D	–	–	50	50-53%K	
Sodium nitrate (Nitrate of Soda)	D	16	–	--	15-16%N	
Super phosphate (22 % & under)	D	–	19	–	16-22%P	
Super phosphate (over 22 %)	D	–	30	–	23-39%P	
Triple super phosphate	D	–	46	–	40-54%P	
Urea	D	46	–	–	45-46%N	
Urea ammonium nitrate (UAN)	L	32	–	–	28-32%N	

CHEMICALS and PESTICIDES for BARLEY, All

F = Fungicide; H = Herbicide; I = Insecticide; M = Misc. Other; MD = Defoliant/Dessicant; MG = Growth Regulator
 AS; Aqueous Suspension, D; Dust, DF; Dry flowable, DG; Water-Dispersible Granules, E or EC; Emulsifiable Concentrate, ES; Emulsifiable
 solution, F or L; Flowable, G or GR; Granular, L; Liquid, LV; Low volatility, M or ME; Microencapsalted, P; Pellets, S; Solution, SL; Slurry, SP;
 Soluble powder, W or WP; Wettable powder, WDG or WG; Water-Dispersible Granules, WSP; Water-soluble packet

D/L	Class	Code	Product Name	D/L	Class	Code	Product Name
L	H	4664	2,4-D/Amine 6	L	I	1141	Cythion 57% EC
L	H	4444	2,4-D/Class 40A	L	I	1089	Cythion ULV 9.33 Lbs.
L	H	4443	2,4-D/Class LV4				
L	H	4187	2,4-D/DMA 4	L	I	1034	Di-Syston 8 (EC)
L	H	4361	2,4-D/Envy	D	I	1033	Di-Syston 15% G
L	H	4204	2,4-D/Esteron 99 Concentrate	D	I	1411	Diatect
L	H	4291	2,4-D/Formula 40	L	I	1029	Dimethoate 4EC
L	H	4221	2,4-D/Hi-Dep	L	H	4039	Direx 4L
L	H	4265	2,4-D/Salvo	D	H	4040	Direx 80 DF
D	H	4391	2,4-D/Savage	L	F	7015	Dithane F-45 Flowable
L	H	4453	2,4-D/See 2,4-D (Ester)	L	F	7318	Dithane M-45 Flowable M
L	H	4306	2,4-D/Weed Rhap LV-4D	L	H	4045	Diuron 4L
L	H	4307	2,4-D/Weed Rhap A-4D	D	H	4046	Diuron 80W
L	H	4004	2,4-D/Weedar 64A	D	I	1040	Dylox 80% SP
L	H	4294	2,4-D/Weedar Emulsamine E-3				
L	H	4296	2,4-D/Weedone 638	L	I	1148	Ethyl Parathion 8
L	H	4297	2,4-D Weedone Areo Concentrate				
L	H	4299	2,4-D/Weedone LV6	L	H	4210	Fallow Master
				L	H	4057	Far-Go (4EC)
D	H	4339	Accent 75 DG	D	H	4211	Far-Go Granular (10%)
L	H	4353	Agasco MXL	L	H	4532	Flexstar
D	H	4390	Amber	L	I	1054	Furadan 4F
L	I	1002	Ambush 2 EC	L	H	4060	Fusilade 2000 (1EC)
L	I	1003	Asana (1.9EC)	L	I	1538	Fyfanon 8lb. Emulsion
L	H	4041	Atrazine 4L				
L	H	4135	Avenge (2L)	D	H	4125	Glean FC (75DF)
				L	H	4314	Gramoxone Extra (2.5L)
L	H	4327	Banvel SGF (2EC)	L	H	4654	Gramoxone Max/Cyclone
D	F	7046	Bayleton 50% DF	L	I	1152	Guthion 2L
D	F	7003	Benlate (50WP)	D	I	1056	Guthion 35% WP
D	F	7004	Benlate 50 DF				
D	H	4023	Bladex 80 WP	D	H	4137	Harmony GT
D	H	4143	Bladex 90DF	L	H	4065	Hoelon 3EC
L	I	1686	BMP (123-48 LC)	L	H	4222	Honcho
L	H	4574	Bromoxynil Weed Killer				
L	H	4153	Bronate (4EC)	D	H	4224	Igran 80W
D	H	4155	Buckle (G)				
L	H	4024	Buctril 2 EC	D	I	1142	Javelin WG
L	H	4025	Buctril 4 EC	L	H	4372	Jury
L	H	4159	Butyrac 175 (1.75 EC)				
L	H	4160	Butyrac 200 (2 EC)	D	H	4066	Karmex DF
L	H	4586	Butyrac Ester				
				L	H	4326	Landmaster II
L	I	1011	Carbaryl 4 L	L	I	1063	Lannate L 1.8 lbs.
L	H	4163	Carbyne 2EC	L	I	1064	Lannate LV 2.4 lbs.
D	H	4471	Cheyenne container #1 (aka X-TRA)	D	H	4073	Lexone DF
				L	I	1111	Lindane 20% EC
L	H	4465	Cheyenne FM (container #2)	L	H	4074	Linex 4 L
L	H	4166	Chiptox MCPA Sodium (2L)	D	H	4075	Linex 50 DF
D	H	4441	Cheat Stop 90WDG	L	H	4047	Linuron 4 L
D	I	1670	Condor WP	L	I	1069	Lorsban 4
L	I	1027	Cygon 400 (4EC)				
L	I	1360	Cythion 8 Aquamul				

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D/L	Class	Code	Product Name	D/L	Class	Code	Product Name
L	I	1236	Malathion 5 (57% EC)	D	I	1127	Thimet 20-G
L	I	1228	Malathion 8	L	I	1128	Thiodan 3EC
L	I	1094	Malathion 95% Spray	L	I	1174	Thiodan 50 WP
D	F	7311	Mankocide	L	H	4280	Tiller
D	F	7328	Manzate 75 DF	L	F	7316	Top Crop Flowable
D	F	7025	Manzate 200 DF (75%)	L	H	4463	Tordon RTU
D	F	7024	Manzate 200 (80WP)	L	H	4110	Treflan M.T.F. (4EC)
L	H	4293	MCP 4 Ester	D	H	4111	Treflan TR-10
L	H	4292	MCP Amine 4	L	H	4450	Trifluralin 4 (EC)
D	F	7115	Mertect DF	L	H	4112	Trilin (4EC)
L	I	1088	Methyl Parathion 7.5EC	L	H	4113	Trilin AT (4EC)
				D	H	4285	Trilin 10G
L	I	1548	NeemGard	L	H	4290	Vernam 7-E
L	F	7300	Nu-Cop 3L	L	F	7086	Vitavax-200
D	F	7309	Nu-Cop 50DF				
L	I	1098	Nudrin 1.8	L	H	4003	Weedar 64
D	I	1099	Nudrin 90 WSP				
L	H	4239	One Shot 2.5 EC	D	H	4471	X-TRA (aka Cheyenne container #1)
L	I	1115	Parathion 8E				
L	I	1153	Parathion-Methyl Parathion 6-3EC				
L	I	1164	Penncap-M				
D	F	7026	Penncozeb (80WP)				
L	I	1166	Phosphamidon 8 Spray				
D	H	4337	Propanil WDG (50%)				
L	H	4481	Protocol				
D	I	1113	Proxol 80 SP				
L	H	4092	Ranger 2EC				
L	H	4328	Rattler				
D	H	4750	Rave				
L	H	4261	Rhomene (4L)				
L	H	4262	Rhonox				
L	I	1035	Seis-Tres 6-3 (EC)				
L	H	4095	Sencor 4				
D	H	4096	Sencor DF (75%)				
L	I	1132	Sevin 4 F				
L	I	1019	Sevin SL				
D	I	1018	Sevin 80 S				
D	I	1015	Sevin Bait 5%				
L	I	1370	Sniper 2E				
L	H	4868	Starane + Saber				
L	H	4320	Stinger (3EC)				
L	H	4486	Sword				

Conversion Codes for Liquid & Dry Products

Liquid Products

1 Gallon = 4 Quarts

1 Quart = 2 Pints

1 Pint = 16 Fluid Ounces

2 Cups = 1 Pint

Dry Products

1 Pound = 16 Dry Ounces

1 Ounce = 28.3 Grams

1 Pound = 453 Grams

PEST MANAGEMENT INFORMATION SOURCES

Section E, item 34 . . .

- 1 County, Cooperative, or University Extension Advisor, Publications or Demonstrations
- 2 Farm Supply or Chemical Dealer
- 3 Commercial Scouting Service
- 4 Independent Crop Consultant or Pest Control Advisor/Custom Applicator
- 5 Other Growers or Producers
- 6 Producer Associations, Newsletters or Trade Magazines
- 7 Electronic Information Services (*DTN, Internet, World Wide Web, etc.*)
- 8 Employee Pest Advisor
- 9 Other - (Specify _____)
- 10 None - Operator used no **outside** information source

Section F, item 3

MACHINERY and IMPLEMENT CODES

PLOWS and DISKS

- 01 Chisel Plow (Big Ox)
- 02 Coulter Plow
(Coulter Chisel, Soil Saver, Soil Conserver)
- 03 Deep Ripper
(Knife, Bed Knife, Slide)
- 04 Disk Plow
- Moldboard
- 05 -Regular
- 06 -Two-way
- 07 Stubble-mulch
(Noble, Sweeps, Hoeme Plow, Muckeroy Plow)
- 08 Subsoiler
(Chisel, Ripper, V-ripper)
- 09 Disk-chisel
(Mulch Tiller)
- Offset Disk
- 10 -Heavy Disk
- 11 -Light Disk
- 12 One-way Disk
(Disk Tiller)
- 13 Single Disk
- Tandem Disk
- 14 -Plowing
- 15 -Regular
- 16 Paraplow

PACKERS

- 51 Culti-packer
(Pulverizer, Crow-foot, Serrated, Ring, Spiral)
- Roller-packer
- 52 -Attachment
- 53 -Smooth & Flat

CULTIVATORS

- 21 Field Cultivator
(Regular Digger, Triple K, Danish Tined, Swedish Tined, Incorporated, S-tine, Cultivator, Vibra-shank Harrow, Lilliston Tiller)
- 22 Furrow-out
- 23 Rotary Hoe
(Crust Buster)
- Row
- 24 -Disk Sweep, Shovel
- 25 -Rolling, Rotary
- Field Cultivator
- 26 -Heavy Duty
(Duckfoot Cultivator)
- 27 Marker
- 28 Fallow Master

BEDDERS-SHAPERS

- 41 Bedder (Shaper)
Bedshaper, Crowder)
- 42 Bed Shaper
- Disk
- 43 -Hipper
- 44 -Row
- 45 Float
- 46 Lister (Middle-buster)
- 47 Rotovator-bedder
- 48 Seedbed Roller
(Flat Roller)
- 49 Sub-soil Bedder
(Ripper-hipper)
- 50 Discovator

HARROWS (DRAGS)

- 30 Heavy Harrow
- 31 Field Conditioner
(Scratcher, Seed Bed Conditioner, Soil Conditioner, Ground Hog)
- 32 Finishing
(Harrogator, Spiral, Roller, Knives, Shanks, Pegs, Smoother)
- 33 Flex-tine Tooth
(Coil Tine)
- 34 Multi-weeder
(Cultivator & Harrow)
- 35 Rail, Pipe, Log, Plank
- 36 Rod Weeder
- 37 Roller (Culti-mulcher, Pulvi-mulcher, Crumbler, Packer-mulcher, Packer & Shanks)
- 38 Spike Tooth
- 39 Spring Tooth
- 40 Powered Spike Tooth Harrow

PLANTERS

- 111 Bedder-shaper Planter
- 112 Lister-bedder
- 113 No-till, Minimum Till,
(Ripper Planter)
- 114 Conventional,
Regular (Tye, Flex)
- 115 Air Delivery/vacuum
- 116 Ridge till

Section F, item 3

MACHINERY and IMPLEMENT CODES**MISCELLANEOUS TILLAGE**

- 61 Land-all, Do-all Mix-n-till, Till-all
(Disk, Shovels, Reel & Spikes)
- 62 Mulch Treader, Picker,
Treader, Skew
- 63 Roto-tiller
- 64 Roterra (Roto-spike, Lely)
- 65 Sand-fighter
- 66 Soil Finisher
(Finishing Tool, Mulch Finisher
Tri-tiller, Task Master)
- 67 Root Crown Puller

FERTILIZER APPLICATORS

- 71 Aerial (Airplane)
 - 72 Attachment to Implement
 - 73 Manure Spreader
 - 74 Self-propelled
 - 75 Truck Spreader
- Tractor Mounted
- 76 -Anhydrous
 - 77 -Dry
 - 78 -Liquid
- Trailer Mounted
- 79 -Anhydrous
 - 80 -Dry
 - 81 -Liquid

CHEMICAL APPLICATORS

- 91 Aerial (Airplane)
- 92 Attachment to Implement
- 93 Largest Self-propelled
(Or Large Truck)
- 94 Motorcycle/atv Sprayer
- 95 Small Self-propelled
(Spray-coupe, Hi-cycle)
- 96 Small Truck (Skid Mounted)
- 97 Tractor Mounted
- 98 Trailer Mounted

DRILLS and SEEDERS

- 101 Aerial Seeding
 - 102 Broadcast Seeder
- Drill
- 103 -Air Delivery
 - 104 -Lister Disk
 - 105 -No-till,
Minimum till
 - 106 -Plain
 - 107 -Press, Disk or Hoe

HARVESTING EQUIPMENT

- Small Grains/Row Crops Combine
- 121 -Hillside
 - 122 -Self-propelled, 2wd
 - 123 -Self-propelled, 4wd
 - 124 -Track
 - 125 -PTO/motor Mounted
- Windrower-swather
- 126 -(Grain/hay)pto
 - 127 -(Grain/hay)
Self-propelled
- 133 Corn Picker
 - 134 Hand Harvesting

PTO - Power Take-off
WD - Wheel Drive

HAULING EQUIPMENT

- Trailers
- 194 General Purpose Wagon or Cart
 - 195 Hay Wagon
 - 208 Gravity Wagon
 - 209 Grain Cart with Auger
 - 221 Forage Wagon
 - 222 Dump Wagon
 - 220 Other Trailers
- Trucks
- 301 -Single Axle
 - 302 -Tandem Axle
 - 303 -Tri-Axle
 - 304 -Semi
 - 305 Other Trucks

LAND FORMING EQUIPMENT

- 171 Backhoe
- 172 Disk Border Maker
- 173 Ditch Closer
- 174 Ditched
- 175 Levee Plow Disk
- 176 Quarter Drain Machine
- 177 Rear Mounted Blade
- 178 Corrugator
(Furrow Dicer,
Dammar Dicer, Dicer)
- 180 Land Plane Leveler
(Water Leveler)
- 181 Laser Planer, Laser Leveler
- 182 Gate Setter
- 183 Bull Dozer

For implements codes 171-177,
enter *Total Hours Operated* in the
column labeled *Total Acres Covered*.
Total Acres Covered is not
meaningful for these implements.

MOWERS and BALERS

- 141 Amish Harvester
- Bale Wagon
- 142 -Pto
 - 143 -Self-propelled
 - 144 Bale Loader
- Baler
- 145 -Motor Mounted
 - 146 -PTO (Large)
 - 147 -PTO (Small)
 - 148 -Self-propelled
 - 149 Mower-chopper-Rotary
 - 150 -Conditioner/PTO
 - 151 -Self-propelled
 - 152 -Drum-disk
 - 153 -Flail
 - 154 -Sickle
- Rake
- 155 -Dump
 - 156 -Side Delivery
 - 157 -Wheel
 - 158 Stack Mower
 - 159 Stacker, Automatic
 - 160 Front End Loader

OTHER IMPLEMENTS

- 191 Burn Buggy
- 192 Chaff/straw Saver
- 193 Electric-discharge Weed Killer
- 196 Off-field Thresher
- 197 Rock Picker
- 198 Rock Windrower or Rake
- 199 Rodent (Gopher) Killer
- 200 Roller Groover
- 201 Rubber-wheeled Weed Puller
- 202 Flail Shredder
- 203 Rotary Shredder
- 204 Silage Harvester
- 205 Stalk Shredder, Stalk Cutter
- 206 Swath Roller
- 207 Tractor or Truck - No Attachments
- 223 Flame Thrower

SECTION G, IRRIGATION TYPE CODES

PRESSURE SYSTEMS		GRAVITY SYSTEMS	
1	HAND-MOVE	10	SIPHON TUBE from unlined ditches
2	SOLID OR PERMANENT SET	11	SIPHON TUBE from lined ditches
3	SIDE ROLL OR WHEEL LINE	12	PORTAL SYSTEM from unlined ditches
4	CENTER PIVOT OR LINEAR MOVE with sprinklers on main line	13	PORTAL SYSTEM from lined ditches
5	CENTER PIVOT OR LINEAR MOVE with sprinklers below main line, but more than 2 feet above ground	14	ANY POLY PIPE SYSTEM
6	CENTER PIVOT OR LINEAR MOVE with sprinklers less than 2 feet above ground	15	GATED PIPE (not poly pipe)
7	BIG GUN	16	IMPROVED GATED PIPE (surge flow or cablegation not poly pipe)
8	LOW FLOW IRRIGATION (drip, trickle or micro sprinkler)	17	SUBIRRIGATION
9	OTHER - SPECIFY	18	OPEN DISCHARGE FROM WELL OR PUMP
		19	OTHER - SPECIFY

RUN-OFF CODES

Section G, item 9

1	Retained at the end of the field?
2	Re-used to irrigate on the farm?
3	Collected in evaporation ponds on the farm?
4	Drained from the farm?
5	There is no runoff.

LANDLORD/CONTRACTOR COSTS

Section I,
Item 1 . . .

<p>Seed Costs</p> <p>a. Purchased seed</p> <hr/> <p>Fertilizer Costs [Exclude Lime and Gypsum]</p> <p>b. Fertilizer custom applications</p> <p>c. Fertilizer materials</p> <hr/> <p>Chemicals/Pesticides Costs</p> <p>d. Chemicals/pesticides custom</p> <p>e. Chemicals/pesticides materials</p> <hr/> <p>Technical Services</p> <p>h. Soil tests or plant tissue tests</p> <p>i. Scouting service</p> <p>j. Develop or write plans</p>	<p>Custom Field Operations and Services</p> <p>l. Custom land preparation, shaping, and/or leveling</p> <p>m. Custom cultivating</p> <p>n. Custom planting and/or reseeding</p> <p>o. Custom harvesting</p> <p>q. Baler twine/wire</p> <p>r. Custom hauling</p> <p>s. Custom raking, baling or hauling barley straw</p> <p>t. Custom drying</p> <p>v. Contract and other paid labor</p> <p>w. Other custom and/or technical services</p> <hr/> <p>Drying Costs</p> <p>x. Fuel and/or electricity for drying</p> <p>y. Repairs of the facilities used for drying</p> <hr/> <p>Irrigation and Water Management Costs</p> <p>z. Purchased irrigation water</p> <p>aa. Fuel, lubrication, and electricity for irrigation</p>
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