

AGRICULTURAL RESOURCE MANAGEMENT SURVEY PHASE II



Rice Respondent Booklet

2013



Dear Producer,

Every year the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS), in cooperation with the Economic Research Service, conducts the Agricultural Resource Management Survey (ARMS). The survey gathers information on production practices for different commodities each year. In 2013, ARMS focuses on U.S. rice and peanut production.

The interviewer will ask you to report your nutrient or fertilizer use, biocontrol or pesticide applications, and pest management and irrigation practices. The results of this survey will help agricultural leaders and decision-makers better understand how producers cope with risk, adapt to policy changes, and make decisions about chemical use, new technologies and many other aspects of farming.

Your participation is important. By responding to this survey you can help NASS compile an accurate picture of farming in the United States. This will ensure that decisions impacting production practices and the well-being of farms are based on accurate, timely information.

As with all our surveys, NASS safeguards the privacy of all respondents, ensuring that no individual respondent or operation can be identified. Be assured that your responses to ARMS will be kept **completely confidential**, as required by federal law.

Thank you in advance for investing in the future of U.S. agriculture and ensuring that decisions affecting you, your family, your business and your community are based on the facts.

Sincerely,

A handwritten signature in blue ink that reads "Hubert Hamer".

Hubert Hamer  
Chair, Agricultural Statistics Board  
U.S. Department of Agriculture  
National Agricultural Statistics Service

## FEDERAL CROP INSURANCE COVERAGE

### Section B, Item 29a

- 1 **Federal CAT** (*Basic Catastrophic Insurance*) bought for a flat fee and protects against crop loss greater than 50% of average yield, at 55% of the price.
- 2 **Buy-up Above Basic Federal CAT** for higher levels of yield and price protection (*such as 65% of yield and 100% Price, multi peril crop insurance*).
- 3 **Revenue Insurance** include Income Protection (IP), Crop Revenue Coverage (CRC), and Revenue Assurance (RA).
- 4 **Organic Plan Insurance includes:**
  - 1) certified organic acreage,
  - 2) transitional acreage being converted to certified organic, and
  - 3) buffer zone acreage.
- 5 **Other Federal Crop Insurance** (*Group Risk Plan, Adjusted Gross Revenue, Group Risk Income Protection, etc.*).

## 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 aircraft
- 4 In seed furrow
- 5 In irrigation water
- 6 Chisel/Injected or knifed in
- 7 Banded in or over row
- 8 Foliar or directed spray
- 9 Spot treatments (**Section D only**)

Section C, item 3

Common Fertilizers and Their Percent Analysis

[Enumerator Note: If Respondent cannot report the formulation for Section C, item 3, use the formulations below.]

Name	Form	Percent Active Ingredients			
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	S
Ammonia	D/L	80	---	---	---
Ammoniated superphosphate	D	12-17	22-35	---	---
Ammonium metaphosphate	D	12	51	---	---
Ammonium nitrate	D	32-34	---	---	---
Ammonium phosphate	D	11-18	46-48	---	---
Ammonium phosphate nitrate	D	27-30	10-15	---	---
Ammonium phosphate sulfate (APS)	D	13-16	20	---	15
Ammonium polyphosphate (APP)	L	10-11	34-37	---	---
Ammonium polysulfide (Ammonium Sulfate)	L	20-21	---	---	24
Ammonium sulfate nitrate	D	20-30	---	---	5
Ammonium thiosulfate solution	L	12	---	---	26
Anhydrous ammonia	L/G	82	---	---	---
Aqua ammonia (Ammonium Hydroxide)	L	16-25	---	---	---
Bone meal	D	0-2	10-20	---	---
Calcium ammonium nitrate	D	15-16	---	---	---
Diammonium phosphate sulfur	D	15-16	39-41	---	---
Diammonium phosphate (DAP)	D	16-21	46-53	---	---
Elemental sulfur	D	---	---	---	52-100
Greensand	D	---	1	6	---
Magnesium sulfate	D	---	---	---	13
Monoammonium phosphate (MAP)	D	11-13	48-62	---	---
Natralene	D/L	40	---	---	---
Nitrogen solutions	L	7-58	---	---	---
Nitric phosphate	D	12-17	22-35	---	---
Phosphate rock	D	---	2-35	---	---
Phosphoric acid	L	---	2-76	---	---
Potassium carbonate	D	---	---	34-48	---
Potassium chloride (Muriate of potash)	D	---	---	60-62	---
Potassium magnesium sulfate	D	---	---	22	23
Potassium metaphosphate	D	---	55-57	37-38	---
Potassium nitrate	D	13	---	44	---
Potassium orthophosphate	D	---	30-60	30-50	---
Potassium polyphosphate	L	---	40-60	22-48	---
Potassium sodium nitrate	D	15	---	14-15	---
Potassium solutions	L	---	---	13-15	---
Potassium sulfate	D	---	---	50-53	16
Sodium nitrate (Nitrate of Soda)	D	15-16	---	---	---
Sulfuric acid	L	---	---	---	20-26
Super phosphate (22% & under)	D	---	16-22	---	11
Super phosphate (over 22%)	D	---	23-39	---	11
Triple super phosphate	D	---	40-54	---	11
Urea	D	45-46	---	---	---
Urea, sulfur coated	D	36-38	---	---	13-16
Urea ammonium phosphate	D	25-58	28-35	---	---
Urea ammonium nitrate (UAN)	L	28-32	---	---	---
Urea phosphate	D	17	44	---	---

**CHEMICALS and PESTICIDES for Rice, All**

**F** = Fungicide; **H** = Herbicide; **I** = Insecticide; **M** = Misc. Other; **MD** = Defoliant/Desiccant; **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** = Microencapsulated,  
**P** = Pellets, **S** = Solution, **SC** = Soluble Concentrate, **SL** = Slurry, **SP** = Soluble powder, **W** or **WP** = Wettable powder,  
**WDG** or **WG** = Water-Dispersible Granules, **WSP** = Water-soluble packet

Form	Class	Code	Product Name	EPA #	Form	Class	Code	Product Name	EPA #
L	H	40836	2,4-D AMINE	5905-72	D	F	70048	DIAMOND COPPER SULPHATE (BLUESTONE)	1386-304
L	H	40480	2,4-D AMINE - 4	62575-1	L	I	10324	DREXEL MALATHION 5EC	19713-217
L	H	40481	2,4-D AMINE 4	9779-263	L	H	40879	DUET HERBICIDE	71085-9
L	H	40834	2,4-D AMINE WEED KILLER	1386-43	D	H	40248	DUPONT HARMONY EXTRA XP HERBICIDE	352-611
L	F	70709	ABOUND FLOWABLE FUNGICIDE	100-1098	D	H	40978	FACET 75 DF	7969-113
L	H	40948	AIM EC	279-3241	L	I	10487	FURY 1.5 EW INSECTICIDE	279-3126
D	H	41165	AIM HERBICIDE	279-3194					
L	H	40477	AMINE 400 2,4-D WEED KILLER	2217-2	L	H	40774	GRANDSTAND R	62719-215
L	H	40321	ATLAS BRAND PROPANIL 4	5905-77	D	H	40306	GRANITE GR	62719-501
					L	H	40497	GRASP SC	62719-500
D	H	40257	BOLERO 10G	59639-80	D	H	40626	GWN-3061	81880-2
D	H	40305	BOLERO 15G (HERBICIDE)	59639-112					
L	H	40428	BOLERO 8 EC (HERBICIDE)	63588-6	L	H	40320	HELENA BRAND PROPANIL 4	5905-182
					L	H	40272	HELENA BRAND PROPANIL -3	5905-68
D	H	40986	CERANO 5 MEG	279-3269	L	I	11306	HEXY 2E	83529-28
L	I	10239	CHEMINOVA METHYL PARATHION 4 EC	67760-43					
L	I	11307	CHLORPHYRIFOS 4E AG	84229-25	L	I	10351	KARATE 1EC	100-998
L	H	40478	CLEAN CROP AMINE 4 2,4-D WEED KILLER	34704-120	L	I	10739	KARATE INSECTICIDE WITH ZEON TECHNOLOGY	100-1097
L	H	40838	CLEAN CROP (R) AMINE 4CA 2,4-D WEED KILLER	34704-5					
D	H	40498	CLEARPATH HERBICIDE	7969-222	D	H	41261	LONDAX HERBICIDE	71085-33
L	H	40972	CLINCHER CA	62719-356					
L	H	40973	CLINCHER SF	62719-357	L	I	10328	MALATHION 5	9779-5
L	H	40673	COMMAND 3ME MICROENCAPSULATED HERBICIDE	279-3158	L	I	10326	MALATHION 57 EC	34704-108
					L	I	10314	MALATHION 8EC	66330-248
					D	I	11303	MOCAP 15% GRANULAR NEMATICIDE -INSECTICIDE	5481-9040
					D	I	11305	MOCAP 20% GRANULAR LOCK 'N LOAD NEMATICIDE-INSECTICIDE	5481-9042
					L	I	11304	MOCAP EC NEMATICIDE - INSECTICIDE	5481-9041
					L	MD	90177	MOORE AG BRAND POLY-FOLIANT V DEFOLIANT-DESICCANT	49517-3

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Form	Class	Code	Product Name	EPA #	Form	Class	Code	Product Name	EPA #
L	H	40984	NEUPATH HERBICIDE	241-412	D	H	40495	SAVAGE	34704-606
			NUFARM PROPICONAZOLE 41.8						
L	F	70073	EC FUNGICIDE	228-670	L	H	41262	STAM 4 SC	71085-39
					D	H	41263	STAM 80 EDF	71085-38
L	H	40885	PENDIMAX 3.3 EC	68156-6	L	F	70473	STRATEGO FUNGICIDE	264-779
D	H	40833	PERMIT HERBICIDE	81880-19					
			PRENTOX 5 LB. MALATHION						
L	I	10327	SPRAY	655-777	L	F	70072	TILT FUNGICIDE	100-617
L	I	11330	PROAXIS	74921-3	L	H	40918	TOUCHDOWN	100-1117
L	H	40319	PROPANIL 48 SF	71085-2					
D	H	40436	PROPANIL WDG	71085-4	D	H	40940	VALOR WP HERBICIDE	59639-98
L	H	40655	PROWL 3.3 EC	241-337					
			PROZAP MALATHION 57%						
			EMULSIFIABLE LIQUID						
L	I	10325	INSECTICIDE - B	47000-107	L	H	40416	WHAM ! EZ	71085-5
L	F	70525	QUILT FUNGICIDE	100-1178	L	I	10904	ZETA-CYPE 0.8EC INSECTICIDE	279-3327
L	H	40987	RAPTOR HERBICIDE	241-379					
D	H	40974	REGIMENT HERBICIDE	59639-105					
L	H	40964	RICESTAR HERBICIDE	264-682					
			ROUNDUP ORIGINAL 2K						
L	H	41007	HERBICIDE	524-539					
L	H	40842	ROUNDUP ULTRAMAX	524-512					
			ROUNDUP WEED & GRASS						
L	H	40843	KILLER SUPER CONCENTRATE	71995-25					

## PEST MANAGEMENT INFORMATION SOURCES

### Section E, Item 21

- 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

# MACHINERY and IMPLEMENT CODES

## Section F, Item 1, Columns 3 & 4

### PLOWS and DISKS

- 01 Chisel Plow (Big Ox)
- 02 Coulter Plow  
(Coulter Chisel, Soil Saver, Soil Conservor)
- 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

### 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
- 68 Stalk Puller/Chopper

### BEDDERS-SHAPERS

- 41 Bedder (Shaper)  
(Bedshaper, Crowder)
- 42 Bed Shaper

#### Disk

- 43 Hipper
- 44 Row
- 45 Float
- 46 Lister (Middle-buster)
- 47 Rorovator-bedder
- 48 Seedbed Roller  
(Flat Roller)
- 49 Sub-soil Bedder  
(Ripper-hipper)
- 50 Discovator

### 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

### 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

### PACKERS

- 51 Culti-packer  
(Pulverizer, Crow-foot,  
Serrated, Ring, Spiral)

#### Roller-packer

- 52 Attachment
- 53 Smooth & Flat

### 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

### CULTIVATORS

#### Field Cultivators

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



**CHEMICAL APPLICATIONS**

- 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 or 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

**LAND FORMING EQUIPMENT**

- 171 Backhoe
- 172 Disk Border Maker
- 173 Ditch Closer
- 174 Ditcher
- 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
- 197 Rock Picker

**ENUMERATOR NOTE:**

*For Land Forming Equipment codes  
171 – 183, enter Total Hours Operated  
in column 10.*

**MOWERS and BALERS**

- 141 Amish Harvester

**Baler**

- 145 Motor Mounted
- 146 PTO (Large)
- 147 PTO (Small)
- 148 Self-propelled
- 159 Stacker, Automatic

**Mowers**

- 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
- 162 Hay Tedder
- 234 Brush Rake Sweeper

**HAULING EQUIPMENT**

**Bale wagon/mover**

- 142 Bale wagon (PTO)
- 143 Bale Wagon (Self-propelled)
- 144 Bale Loader
- 158 Stack Mover
- 160 Front End Loader
- 161 Round Bale Mover
- 195 Hay wagon
- 224 Forklift

**Trailers**

- 194 General Purpose Wagon or Cart
- 195 Hay Wagon
- 208 Gravity Wagon
- 209 Grain Cart with Auger
- 221 Forage Wagon
- 222 Dump Wagon
- 229 Bin Trailer
- 228 Other Trailers

**Trucks**

- 301 Single Axle
- 302 Tandem Axle
- 303 Tri Axle
- 304 Semi
- 305 Other Trucks

**ENUMERATOR NOTE:**

*For Hauling Equipment codes above,  
enter Total Hours Operated in  
column 10.*

**OTHER IMPLEMENTS**

- 191 Burn Buggy
- 192 Chaff/straw Saver
- 193 Electric-discharge Weed Killer
- 196 Off-field Thresher
- 198 Rock Windower 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

## IRRIGATION TYPE CODES

### Section G, Item 2

<b>PRESSURE SYSTEMS</b>		<b>GRAVITY SYSTEMS</b>	
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

**Notes:**