



AGRICULTURAL RESOURCE MANAGEMENT SURVEY
PHASE II
COTTON PRODUCTION PRACTICES REPORT
RESPONDENT BOOKLET



2017

Dear Producer,

Every year, the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) conducts the Agricultural Resource Management Survey (ARMS). The survey gathers information on production practices for different commodities each year. In 2017, ARMS focuses on U.S. soybean, wheat, and cotton production or cost practices.

The interviewer will ask you to report your nutrient or fertilizer use and your pest management 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 not only can you help ensure that decisions impacting the production practices and well-being of farms are based on accurate, timely information, you also represent and give voice to thousands of farmers like you across the nation.

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 **confidential**, as required by federal law.

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

Sincerely,

Mark Harris
Chair, Agricultural Statistics Board
U.S. Department of Agriculture
National Agricultural Statistics Service

Enclosures

**Section C, Item 4, Column 6
and Section D, Item 1, Column 9**

APPLICATION CODES

- 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 4, Column 2

Common Fertilizers and Their Percent Analysis

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

Name	Form	Percent Active Ingredients			
		N	P ₂ O ₅	K ₂ 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, sulfure 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	---	---

**Section D, Item 1
CHEMICALS and PESTICIDES for Cotton**

Class Definitions:

F = Fungicide; H = Herbicide; I = Insecticide; M = Misc. Other; MD = Defoliant/Dessicant; MG = Growth Regulator;
MS = Soil Fumigant

Common Material Form Terms and Corresponding D/L Classification:

Dry: D = Dust, DF = Dry Flowable, DG = Water-Dispersible Granules, G or GR = Granular, M or ME = Microencapsulated,
P = Pellets, SP = Soluble Powder, W or WP = Wettable Powder, WDG or WG = Water-Dispersible Granules,
WSP = Water-Soluble Packet

Liquid: AS = Aqueous Suspension, E or EC = Emulsifiable Concentrate, ES = Emulsifiable Solution, F or L = Flowable,
L = Liquid, LV = Low Volatility, S = Solution, SC = Soluble Concentrate, SL = Slurry

Form	Class	Code	Product Name	EPA #	D/L	Class	Code	Product Name	EPA #
L	H	40834	2,4-D Amine	1386-43	L	I	11123	Brigade 2EC	279-3313
L	H	40477	2,4-D Amine 4	2217-2	L	H	40951	Buccaneer	55467-10
L	H	40480	2,4-D Amine 4	62575-1	L	H	40119	Caparol 4L	100-620
L	H	40479	2,4-D Amine 4	42750-19	L	I	11296	Capture 2EC	279-3114
L	H	40478	2,4-D Amine 4	34704-120	D	I	11107	Carbine 50 WG	71512-9
L	H	40752	2,4-D Amine 6	42750-21	L	H	40570	Clarity	7969-137
L	H	40753	2,4-D Amine 6	5905-503	L	H	40673	Command 3ME	279-3158
L	H	40754	2,4-D Amine 6	62575-8	L	H	40942	Cornerstone	524-445
L	H	40751	2,4-D Amine 6	228-242	L	H	40943	Cornerstone	71368-60
L	H	40755	2,4-D Amine 6	62719-2	L	H	40941	Cornerstone	1381-191
L	H	40750	2,4-D Amine 6	2217-668	L	H	40281	Cotoran 4L	66222-32
L	H	40390	2,4-D L.V. 4 Ester (3.84	228-139	L	H	40282	Cotoran 4L	66222-181
L	H	40582	2,4-D LV6	2217-413	L	H	40122	Cotton-Pro	66222-116
L	H	40580	2,4-D LV6	1381-101	L	H	40123	Cotton-Pro	66222-15
L	H	40583	2,4-D LV6	35935-6	L	I	11134	Couraze Max 4F	264-783
L	H	40581	2,4-D LV6	1386-616	L	H	41046	Credit Duo Extra	71368-36
D	I	10603	Acephate 75 WSP	19713-400	L	H	41045	Credit Duo Extra	71368-25
D	I	10604	Acephate 75 WSP	66330-354	L	MD	90414	DAZE 4SC	66330-334
D	I	10653	Acephate 90SP	70506-2	L	MD	90294	Defol 5	19713-388
D	I	10651	Acephate 90SP	66222-122	L	MD	90014	Defol 6	19713-85
D	I	10652	Acephate 90SP	5481-8974	L	I	10041	Dimethoate 4EC	19713-231
D	I	10972	Acephate 97UP	70506-8	L	H	40154	Diuron 4L	66222-54
L	MS	90483	ADIOS	66330-344	L	H	40155	Diuron 4L	9779-329
D	H	41165	Aim (40% WDG)	279-3194	L	H	40152	Diuron 4L	19713-36
L	H	40948	Aim EC	279-3241	D	H	40694	Diuron 80DF	9779-318
L	H	41032	Alecto 41S	9468-33	D	H	40157	Diuron 80W	19713-274
L	H	40245	Banvel (4L)	7969-131	L	H	40746	Dual II Magnum	100-818
L	I	10968	Battery 2.5 EC	279-3027	L	H	40747	Dual II Magnum SI	100-829
L	I	10336	Baythroid 2 (EC)	264-745	L	H	40745	Dual Magnum	100-816
L	I	10294	Bidrin 8	5481-448	L	I	11274	Endigo ZC	100-1276
L	MD	90426	Boll Buster	34704-856	D	H	41022	Envoke	100-1132
L	MG	90275	Boll'd	66330-250	L	I	10043	Epi-mek 0.15 EC	100-1154
L	MG	90276	Boll'd	9779-349	L	H	40967	ET	71711-7
D	I	10979	Bracket 90	66330-356	L	MD	90391	ET	71711-7
L	I	10391	BRANDT STS HORTICULTURAL OIL	48813-1	L	MG	90199	Ethephon 2	66330-262

Class Definitions:

F = Fungicide; **H** = Herbicide; **I** = Insecticide; **M** = Misc. Other; **MD** = Defoliant/Dessicant; **MG** = Growth Regulator; **MS** = Soil Fumigant

Common Material Form Terms and Corresponding D/L Classification:

Dry: **D** = Dust, **DF** = Dry Flowable, **DG** = Water-Dispersible Granules, **G** or **GR** = Granular, **M** or **ME** = Microencapsulated, **P** = Pellets, **SP** = Soluble Powder, **W** or **WP** = Wettable Powder, **WDG** or **WG** = Water-Dispersible Granules, **WSP** = Water-Soluble Packet

Liquid: **AS** = Aqueous Suspension, **E** or **EC** = Emulsifiable Concentrate, **ES** = Emulsifiable Solution, **F** or **L** = Flowable, **L** = Liquid, **LV** = Low Volatility, **S** = Solution, **SC** = Soluble Concentrate, **SL** = Slurry

Form	Class	Code	Product Name	EPA #	Form	Class	Code	Product Name	EPA #
L	I	10993	Fanfare 2EC	66222-99	D	I	10831	Orthene 97	5481-8978
L	MD	90438	Firestorm	82557-1	L	MG	90392	Pentia	7969-191
L	MD	90041	Folex 6EC	5481-504	L	MG	90099	Pix Concentrate	66330-346
L	I	10646	Fyfanon ULV 9.9lbs.	67760-34	D	MG	90191	Pix DF	66330-349
L	MD	90160	Ginstar EC	264-634	L	MG	90297	Pix Plus	66330-351
L	H	41023	Gly Star Original	42750-60	L	MG	90033	Pix Ultra	66330-350
L	H	40950	Gly Star Plus	34704-866	L	MG	90034	Prep Brand Ethephon	264-418
L	H	41053	Gly-4 Plus	42750-61	L	H	41010	Prowl H2O	241-418
L	H	40675	Glyphos X-TRA	4787-23	L	H	40365	Reflex	100-993
L	H	40910	Glyphomax	62719-323	L	H	40628	Resource	59639-82
L	H	40506	Gramoxone Inteon	100-1217	L	H	40620	Rifle	34704-861
L	I	11131	Holster	34704-875	L	MD	90167	Roundup Original	524-445
L	I	10876	Intrepid 2F	62719-442	L	H	41162	Roundup Original II	524-454
D	I	10909	Intruder WSP	8033-24	L	H	41007	Roundup Original Max	524-539
L	I	10351	Karate (1EC)	100-998	L	H	40509	Roundup PowerMax	524-549
L	I	10739	Karate Z	100-1097	L	H	40842	Roundup Ultra Max	524-512
L	M	90482	Klean-Pik 500SC	66222-124	L	H	40843	Roundup Ultra Max	71995-25
L	I	10824	Leverage 2.7	264-770	L	H	40372	Salvo	34704-609
L	I	11281	Macho 4.0 Flowable	42750-140	L	H	41025	Sequence	100-1185
L	H	40975	Mad Dog Glyphosate	71368-20	L	MG	90488	Setup	66222-136
L	H	40529	Makaze	34704-890	L	I	11124	Sniper	34704-858
L	H	40528	Makaze	34704-883	L	I	10390	SPRAY OIL 415	34704-727
L	MG	90419	Mepex	228-608	L	MG	70558	Stance Plant Regulator	264-841
L	MG	90420	Mepex	66330-345	D	H	40656	Staple	352-576
L	MG	90430	Mepex Gin Out	228-606	L	H	40001	Staple LX	352-613
L	MG	90181	Mepichlor 4.2% Liquid	66330-241	D	H	41017	Suprend	100-1163
L	MG	90412	Mepiquat Chloride	66222-133	L	MD	90413	Takedown SC	34704-871
L	H	41012	Me-Too-Lachlor	19713-548	L	MS	90011	Telone II	62719-32
L	H	40300	MSMA 6 Plus	19713-42	D	I	10357	Thimet 15-G	5481-527
L	I	10487	Mustang	279-3126	L	I	10978	Tombstone	34704-912
L	I	10904	Mustang Max	279-3327	L	H	40918	Touchdown Herbicide	100-1117
L	I	10903	Mustang Max	279-3249	L	H	40534	Touchdown HiTech	100-1182
L	I	10388	NARROW RANGE 415	34704-1025	L	H	40238	Touchdown Total	100-1169
L	I	10526	Oberon 2 SC	264-719	L	H	41047	Treflan 4L	34704-853
D	I	10149	Orthene 75 S	5481-8971	L	H	40222	Treflan E.C.	62719-97
D	I	10598	Orthene 75 WSP	59639-89	L	H	40220	Treflan E.C.	5905-532
D	I	10632	Orthene 90 WSP	59639-86	L	H	40223	Treflan E.C.	68156-4

Class Definitions:

F = Fungicide; **H** = Herbicide; **I** = Insecticide; **M** = Misc. Other; **MD** = Defoliant/Dessicant; **MG** = Growth Regulator; **MS** = Soil Fumigant

Common Material Form Terms and Corresponding D/L Classification:

Dry: **D** = Dust, **DF** = Dry Flowable, **DG** = Water-Dispersible Granules, **G** or **GR** = Granular, **M** or **ME** = Microencapsulated, **P** = Pellets, **SP** = Soluble Powder, **W** or **WP** = Wettable Powder, **WDG** or **WG** = Water-Dispersible Granules, **WSP** = Water-Soluble Packet

Liquid: **AS** = Aqueous Suspension, **E** or **EC** = Emulsifiable Concentrate, **ES** = Emulsifiable Solution, **F** or **L** = Flowable, **L** = Liquid, **LV** = Low Volatility, **S** = Solution, **SC** = Soluble Concentrate, **SL** = Slurry

Form	Class	Code	Product Name	EPA #	Form	Class	Code	Product Name	EPA #
L	H	40716	Treflan HFP	62719-250	L	I	10258	Vydate L	352-372
D	H	40553	Trifluralin 10G	10163-120	L	H	41113	Warrant (Mon 63410)	524-591
D	H	40554	Trifluralin 10G	34704-790	L	H	40096	Weedar 64	71368-1
L	H	40551	Trifluralin 4EC	9779-303	L	I	11127	WRANGLER	34704-931
L	H	40548	Trifluralin 4EC	42750-32	D	I	10967	Zeal Miticide	59639-138
L	H	40550	Trifluralin 4EC	5905-519	L	I	10405	Zephyr 0.15 EC	100-898
L	H	40547	Trifluralin 4EC	34704-792	D	H	40940	Valor WP	59639-98
L	H	40544	Trifluralin 4EC	19713-254	L	H	40052	Vision (aka ALB 40)	42750-98
L	H	40292	Triflurex HFP	66222-46	L	I	10389	VOLCK OIL SPRAY	239-16
L	H	40887	Trust 4EC	1381-146	L	I	10337	Vydate C-LV	352-532
D	H	40940	Valor WP	59639-98	L	I	10258	Vydate L	352-372
L	H	40052	Vision (aka ALB 40)	42750-98	L	H	41113	Warrant (Mon 63410)	524-591
L	I	10389	VOLCK OIL SPRAY	239-16	D	I	10967	Zeal Miticide	59639-138
L	I	10337	Vydate C-LV	352-532	L	I	10405	Zephyr 0.15 EC	100-898

Conversion Factors for Liquid and Dry Products	
Liquid Products	Dry Products
1 Gallon = 4 Quarts	1 Pound = 16 Dry Ounces
1 Quart = 2 Pints	1 Ounce = 28.3 Grams
1 Pint = 16 Fluid Ounces	1 Pound = 453 Grams
2 Cups = 1 Pint	

Notes: