

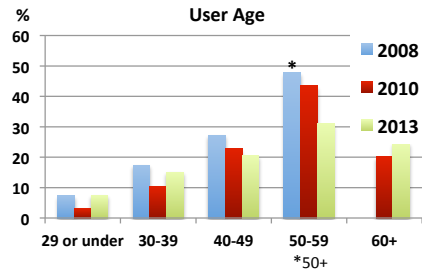
DAS User Survey 2013/2014

USER DESCRIPTION

1 User age

Response	Count	Percent
29 or under	28	7.4
30-39	57	15.1
40-49	77	20.4
50-59	117	31.0
60+	93	24.7
Decline	5	1.3
Total	377	100.0

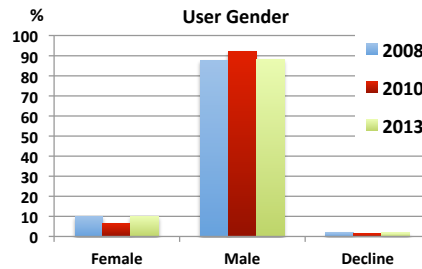
Missings = 5



2 User gender

Response	Count	Percent
Female	37	9.9
Male	328	88.2
Decline	7	1.9
Total	372	100.0

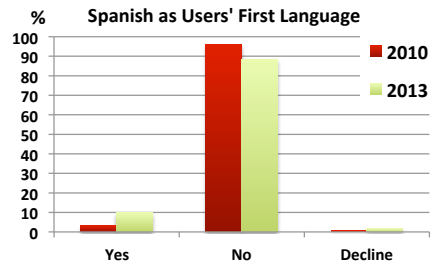
Missings = 10



3 Is Spanish your first language?

Response	Count	Percent
Yes	36	9.8
No	323	88.3
Decline	7	1.9
Total	366	100.0

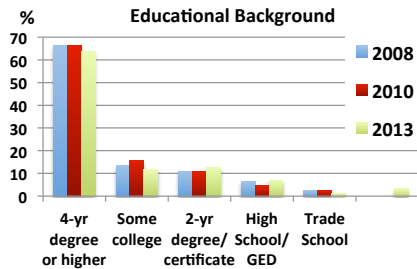
Missings = 16



4 Highest achieved educational background

Response	Count	Percent
4-year degree or higher	235	63.7
Some college	44	11.9
2-year degree/certificate	47	12.7
High School/ GED	26	7.0
Trade School	5	1.4
Decline	12	3.3
Total	369	100.0

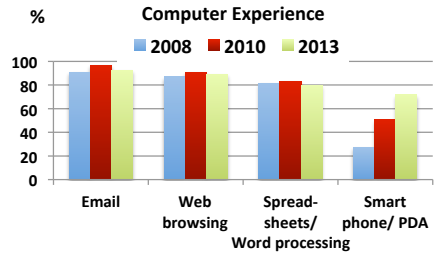
Missings = 13



USER DESCRIPTION cont.

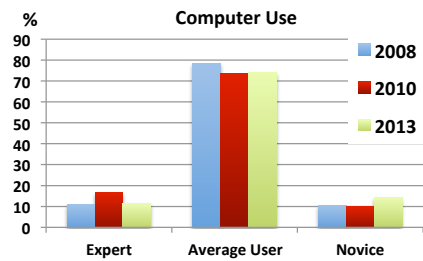
5 Computer experience

Response	Count	Percent
Email	342	92.7
Web browsing	328	88.9
Spreadsheets/ Word processing	294	79.7
Smart phone/ PDA	265	71.8
<i>Missings = 13</i>		



6 When describing your computer usage, do you consider yourself...

Response	Count	Percent
an expert?	42	11.5
an average user?	271	74.0
a novice?	53	14.5
Total	366	100.0
<i>Missings = 16</i>		



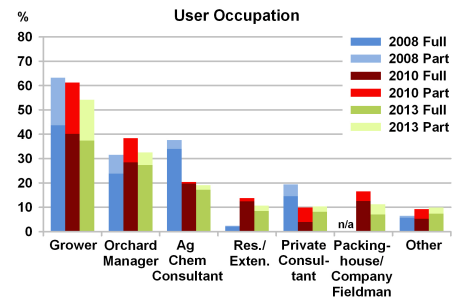
DAS User Survey 2013/2014

ORCHARD INFORMATION

7 User occupation

Occupation	Full-time		Part-time		Total	
	#	%	#	%	#	%
Grower	137	37.4	61	16.7	198	54.1
Orchard manager	100	27.3	19	5.2	119	32.5
Ag Chem consultant	63	17.2	7	1.9	70	19.1
Packinghouse/Company Fieldman	31	8.5	8	2.2	39	10.7
Research/Extension	30	8.2	8	2.2	38	10.4
Private Consultant	26	7.1	15	4.1	41	11.2
other	27	7.4	9	2.5	36	9.8
N/A	25	6.8	257	70.2		

Missing = 7



!!!
Strip
away for
online
pub
!!!

Other Full-time: County Pest Board (2), Engineer (2), Retired (2), Ag Chem office support (1), Ag Chem support (1), Ag distributor manufacture representative (1), Association (1), Field work (1), Forestry (1), Health Care (1), Horticulturist (1), Law enforcement (1), Lineman (1), Nursery (1), Production Manager (1), Public employee (1), Public health (1), Publishing (1), Registrant (1), Seed company (1), Software engineer (1), State Department of Agriculture (1);

Other Part-time: Ag educator (1), Association manager (1), Fruit tree pruner (1), Nursery agent (1), Pest board agent (1), Rancher (1), Rep for GAS at Site CA equipment (1);

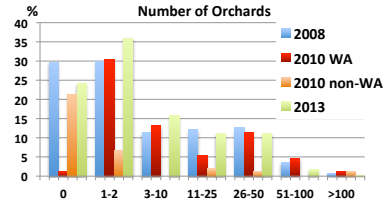
Research/Extension Affiliation: UW (3), WTFRC (2), Pacific Shellfish Institute (1), private business (1), Rohlf's Agricultural Research (1 ???), self employed (1), Semios (1)

8 Number of orchards users provide pest control recommendations or management for:

# Orchards	Count	Percent
0	86	24.2
1-2	128	36.0
3-10	56	15.7
11-25	40	11.2
26-50	39	11.0
51-100	6	1.7
>100*	1	0.3
Total	356	100.0

Missings = 23

*maximum: 150 orchards; total #orchards: 3,350

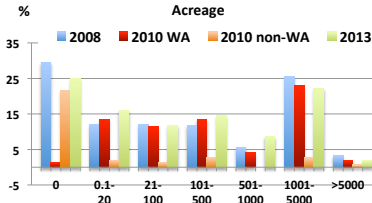


9 Total acreage users provide pest control recommendations or management for:

Acreage	Count	Percent
0	89	24.9
1-20	57	15.9
21-100	42	11.7
101-500	52	14.5
501-1000	31	8.7
1001-5000	80	22.3
>5000	7	2.0
Total	358	100.0

Missings = 24

*maximum: 10,000; total #acres: 297,306 (246,825 acres tree fruit)



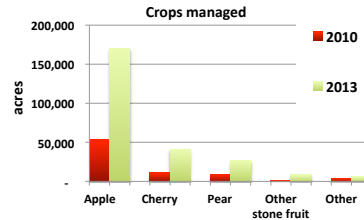
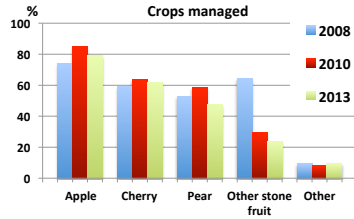
10 Which crops do you provide recommendations or management for?

Response	Count	Percent	Total Acres*
Apple	259	79.0	170,292
Cherry	202	47.9	41,264
Pear	157	61.6	26,628
Other stone fruit	78	23.8	8,659
Other	31	9.5	6,299

Total responses = 328

Other include: grapes (11), berries (5), dry land wheat (1), fallow (1), nursery (1), uvias (1)

*not all respondents entered acreage

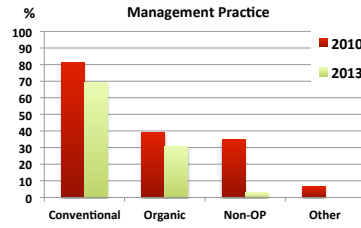


ORCHARD INFORMATION cont.

11 Which of the following best describes your management practices?

Response	Count	Percent
Conventional	247	69.2
Organic	110	30.8
Other	10	2.8
<i>Total responses = 357</i>		

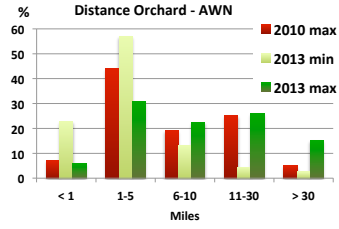
Other include: IPM (4), low input IPM (1), soft IPM (1), both (2), soft (1), sustainable (1)



12 Distance between orchard (WA only) and closest AgWeatherNet (AWN) station

Response	Minimum distance		Maximum distance	
	Count	Percent	Count	Count
< 1 mile	61	22.8	16	6.0
1-5 miles	153	57.1	82	30.7
6-10 miles	35	13.1	60	22.5
11-30 miles	12	4.5	69	25.8
> 30 miles*	7	2.6	40	15.0
Total	268	100.0	267	100
<i>Total responses = 267</i>				

*maximum distance indicated = 200 miles



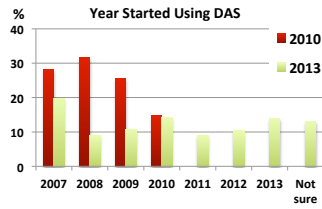
DAS User Survey 2013/2014

WSU-DAS SPECIFIC QUESTIONS

13 When did you start using DAS?

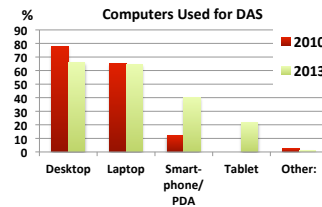
Response	Count	Percent
2007	69	19.7
2008	31	8.9
2009	38	10.9
2010	50	14.3
2011	31	8.9
2012	36	10.3
2013	49	14.0
Not sure	46	13.1
Total	350	100.0

Missings = 32



14 Which types of computers do you use DAS with?

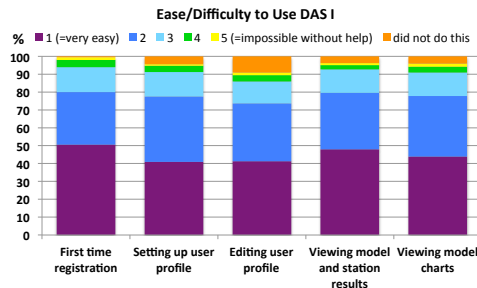
Response	Count	Percent
Desktop computer	230	65.9
Laptop computer	226	64.8
Smartphone/PDA	141	40.4
Tablet computer	77	22.1
Other	3	0.9
Total responses = 349		



15 Please rate on a scale from 1 (= very easy) to 5 (= impossible without help) how easy or difficult the following steps were for you with WSU-DAS (or indicate if you did not do this).

Response	1 (= very easy)		2		3		4		5 (= impossible without help)		Did not do this		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
First time registration	174	50.6	101	29.4	48	14.0	14	4.1	5	1.5	2	0.6	344	100.0
Setting up user profile	140	40.9	125	36.5	47	13.7	12	3.5	3	0.9	15	4.4	342	100.0
Editing user profile	141	41.2	111	32.5	42	12.3	12	3.5	5	1.5	31	9.1	342	100.0
Viewing model and station results	164	48.0	108	31.6	45	13.2	8	2.3	4	1.2	13	3.8	342	100.0
Viewing model charts	150	43.9	116	33.9	45	13.2	11	3.2	6	1.8	14	4.1	342	100.0

Missings = 39



Comments:

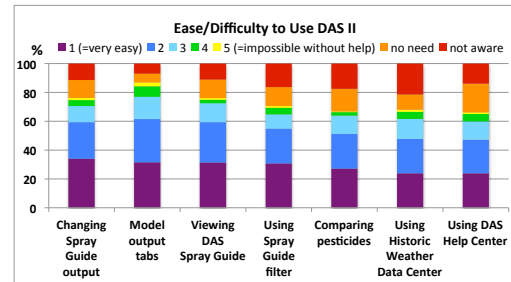
- Again, for crops outside of tree fruit, DAS is not useful.... I and the people I consult with use AWN since there is more info and that info links back to appropriate commodity websites at WSU
- At least on Smartphone, first time set up/add station was fussy--lots of help but not obvious "start here" point
- Currently having model problems
- Disease models often take a long time to load even with the recommended browser
- Entering my weather data into a station was very easy the last couple years, but for some reason it is not working this year and I am having trouble deleting stations to start over.
- Even though I stated I was organic I rarely see organic material options.
- gracias por toda esta informacion
- Great system! It benefits growers greatly, and if all growers used it, the resulting savings and pest management benefits would be incredible. Thanks for the system!
- Has been difficult to go in
- have just signed up and started using site
- have problems login in some times,my password is rejected for no reason
- Having problems with the weather station distance. The site will not respond. The distances from my orchard to the weather stations are unknown to me because of this problem. Also wanted to add my own station but the site is not responding.
- I don't like surveys
- I find the station to be down frequent
- I have not tried to edit or to add more models.
- i just signed up today
- I now lease my orchard so I only refer to DAS for blight decisions
- I really liked Tim Smith old CM graph/chart, showed two generation, flight compared to egg hatch, you probably remember the one. He said it was a difficult graph to build.

- 19 I starting to learn
- 20 It seems like there is a lot of valuable information on your website, but it's difficult finding the time to navigate thru it and maximizing its potential. I would like further information on exact station locations in comparison to the orchards I check - ie. Ahtanum station in conjunction with West Valley/Tampico orchards. Also, printing chart/graph data would be helpful to share weekly pest model data with co-workers (consultants, trap checkers, etc.). All in all your website is invaluable to our industry, and these are just minor considerations. Perhaps I can do all of this, but have yet to figure it out...maybe in the winter when things "slow down". Is there an app for the Android yet? We use US Cellular because they have the best service throughout all areas we serve, but US Cellular does not sell the iphone.
- 21 It was difficult for me to find MRLs. Once I found them. It was OK.
- 22 It would be nice if the scab model would reflect high, moderate or low risk levels like the old PAWS system did. It would also help if DAS had a higher volume server. During the keep blight days this season the model was not accessible.
- 23 me gusta usar este programa porque tiene mucha informacion y me alluda para aprender a trabajar en mi sitio de trabajo
- 24 Me gustaría que inclulleran las uvvas
- 25 need a phone app for DAS
- 26 Need iPad app back
- 27 none
- 28 on one desktop I cant get into the page. I have worked with Ute and still cant get that machine to get into on the site. Luckily more machines are around
- 29 Please not that in the 2013 season i did not use the DAS system after the iphone app was eliminated. It was too difficult to efficiently navigate on the iphone browser
- 30 Registration is easy when it works
- 31 Signed up, but have not utilized DAS yet
- 32 site has been offline more this season than the past
- 33 sometimes the computer seems to be in a loop, doesn't show what I want to know until I give up in frustration. Still like using the site when it cooperates with me. Good stuff.
- 34 The "View Models" does not work on my iphone
- 35 Took awhile to understand the various display options/data for each pest.
- 36 very time consuming to use this application
- 37 Very well set up and I do not spend much time on computers
- 38 We had help setting up DAS at a hort. convention
- 39 Website has constant issues. Recently models are not able to be viewed. Took cooperate with DAS help just to create an account.
- 40 would like a way to hit DAS on my favorites and it would truely remember me so I would not have to login w/ name and password each time.
- 41 Your interface is more Windows like than Mac like; i.e. it is a bit non-intuitive.
- 42 you need to keep the predictive chart for fireblight hence why it is impossible to get to charts

16 Please rate on a scale from 1 (= very easy) to 5 (= impossible without help) how easy or difficult the use of the following features is for you (or indicate if you did not use or were not aware of them).

Response	1 (= very easy)		2		3		4		5 (= impossible without help)		id not need/want		Was not aware of it		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Changing Spray Guide output for different pests/crops/crop stages	113	34.0	84	25.3	37	11.1	14	4.2	5	1.5	41	12.3	38	11.4	332	100.0
Viewing DAS Spray Guide	105	31.4	93	27.8	44	13.2	8	2.4	4	1.2	43	12.9	37	11.1	334	100.0
Model output tabs with charts, data table, mini spray guide, weather and wind forecast, etc.	104	31.5	99	30.0	51	15.5	24	7.3	9	2.7	20	6.1	23	7.0	330	100.0
Using Spray Guide filter	102	30.7	80	24.1	33	9.9	15	4.5	4	1.2	44	13.3	54	16.3	332	100.0
Comparing selected pesticides in the DAS Spray Guide	90	27.1	80	24.1	42	12.7	8	2.4	2	0.6	52	15.7	58	17.5	332	100.0
Using Historic Weather Data Center	79	23.9	79	23.9	46	13.9	16	4.8	5	1.5	35	10.6	71	21.5	331	100.0
Using DAS Help Center	79	23.9	77	23.3	42	12.7	17	5.1	4	1.2	66	19.9	46	13.9	331	100.0

Missings = 52



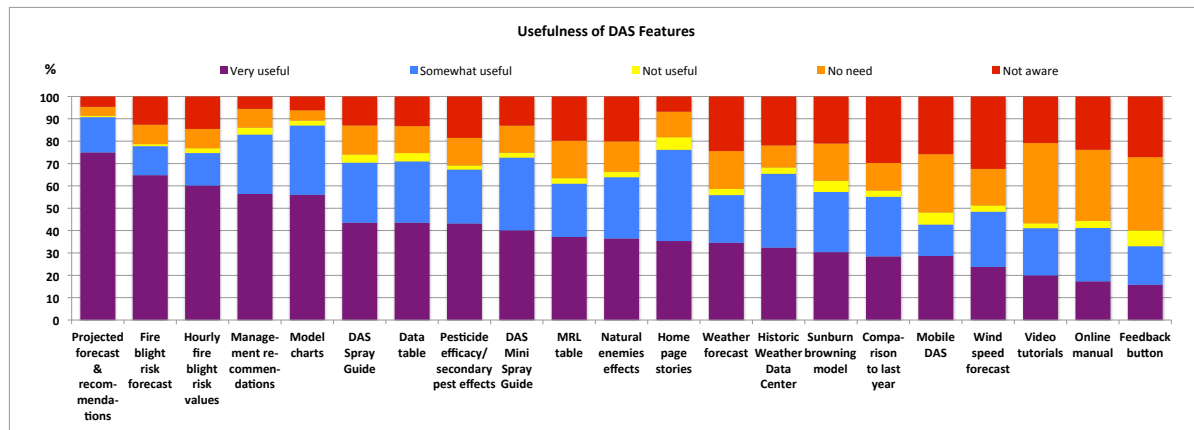
Comments:

- 1 Again have not used DAS as of yet
- 2 An iphone app would be better
- 3 Cannot get this to work on my iPhone.
- 4 Didn't realize these options were available
- 5 have not used all of these features.
- 6 I basically only check for codling moth and apple maggott fly times to arrive in Western Washington.....I help as a volunteer with some of Seattle's parks.
- 7 I didn't know of half of these features.
- 8 I don't like surveys
- 9 I haven't used most of these features
- 10 I just started using DAS, so i haven't used this system as of yet
- 11 I use the sprayguide, it is a great Tool, but not thru DAS.
- 12 I'd like to see a lot more previous days in the data tables, to make it easier to compare your weather stations to my local weather station. I think you show only the 7 previous days; I'd prefer to see at least 30.
- 13 i'm just trying to sign up
- 14 incomplete list of chemicals that will work, for the different pests. information is always 2 - 3 years behind
- 15 Looks like I am not using a lot of what you have available. I will try to use some of these other programs and fill out another survey later.
- 16 made my computers lock up and my smart phone went bananas
- 17 My orchard is now leased so I do not make general management decisions
- 18 Need iPhone or iPad app back
- 19 Need to be able to go back and look at model for past dates (years). Have done this but unless it's changed, the model does not actually bring up actual weather data from the past. Not sure what weather data it uses for past searches, but it has not been accurate.
- 20 Need to make it easier to copy and paste recommendations to emails so consultants can easily transfer this info to growers
- 21 Our fieldman/ consultant makes these reqs for us.
- 22 Still use printed edition of sprayguide.

17 Please rate the usefulness of the following features or indicate if you did not use or were not aware of them.

Response	Very useful		Somewhat useful		Not useful		Did not need/want		Was not aware of it		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Projected forecast & recommendations	242	74.9	51	15.8	2	0.6	13	4.0	15	4.6	323	100.0
Fire blight risk forecast	210	64.8	42	13.0	3	0.9	28	8.6	41	12.7	324	100.0
Hourly fire blight risk values for past 96h	195	60.2	47	14.5	7	2.2	28	8.6	47	14.5	324	100.0
Management recommendations	182	56.3	86	26.6	10	3.1	27	8.4	18	5.6	323	100.0
Model charts	181	56.0	100	31.0	7	2.2	15	4.6	20	6.2	323	100.0
DAS Spray Guide	141	43.5	87	26.9	12	3.7	42	13.0	42	13.0	324	100.0
Data table	141	43.5	89	27.5	12	3.7	39	12.0	43	13.3	324	100.0
Pesticide efficacy/ secondary pest effects	140	43.2	78	24.1	6	1.9	40	12.3	60	18.5	324	100.0
DAS Mini Spray Guide	129	40.1	105	32.6	7	2.2	39	12.1	42	13.0	322	100.0
MRL (maximum residue level) table	120	37.2	77	23.8	8	2.5	54	16.7	64	19.8	323	100.0
Natural enemy effects	118	36.4	89	27.5	8	2.5	44	13.6	65	20.1	324	100.0
Home page stories	114	35.3	132	40.9	18	5.6	37	11.5	22	6.8	323	100.0
Weather forecast	112	34.6	69	21.3	9	2.8	55	17.0	79	24.4	324	100.0
Historic Weather Data Center	105	32.4	107	33.0	9	2.8	32	9.9	71	21.9	324	100.0
Sunburn browning model for apple	98	30.3	87	26.9	16	5.0	54	16.7	68	21.1	323	100.0
Comparison to last year	92	28.5	86	26.6	9	2.8	40	12.4	96	29.7	323	100.0
Mobile DAS	90	28.7	44	14.0	17	5.4	82	26.1	81	25.8	314	100.0
Wind speed forecast	77	23.8	80	24.7	9	2.8	53	16.4	105	32.4	324	100.0
Video tutorials	65	19.9	69	21.2	7	2.1	117	35.9	68	20.9	326	100.0
Online manual	56	17.3	77	23.8	10	3.1	103	31.9	77	23.8	323	100.0
Feedback button	51	15.7	56	17.3	23	7.1	106	32.7	88	27.2	324	100.0

Missings = 60



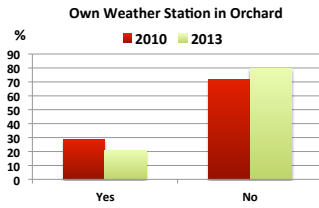
Comments:

- 1 A very valuable tool the Blight control model
- 2 After reading about all these features I was not aware of, I will go back to the site and learn more
- 3 At the beginning DAS works fine in the Iphone but not anymore..
- 4 Because every orchard has its own mezoclimate, and topographical characteristics the data is not always a perfect match, but it is helpful to have it.
- 5 Have not used DAS yet
- 6 i am planning to use DAS this season. i would like some tutorial on setting up and understanding all that is available
- 7 I am some distance from a mobil station I average them out. They are valuable for keeping up on degree days.
- 8 I can not go in is blocking I will let you know my opinion went I can get in thanks
- 9 i guess given my answers above i need to take the time to learn all parts of system
- 10 I hand copy the current Data Table for CM, OBLR, CFF, PTB, FB Risk for every station in my profile, every Monday. I also copy weather forecast for that week in Wenatchee. Best way to keep the info I need at my fingertips.
- 11 I have a windows 8 phone I check the models mainly for fruit fly , codling moth, and peach twig borer flights I use the WE fieldman spray recommendations He uses DAS
- 12 i have an android smart phone, my understanding is that it is not available for android systems, is this correct?
- 13 I have been a horticulturist since 1980,i have seen a lot of changes DAS has been a good one .
- 14 I have been using the WSU Spay Guide - fast & easy quick reference.
- 15 I haven't had a chance to use the mobile phone setup yet, but was going to try more this year.
- 16 I just don't have the time to learn much of this. I know I should but what do you cut out?
- 17 I was unaware of all the useful information on this website.
- 18 I will have to look into using some of these features.
- 19 I'll check out the weather sites.
- 20 just signed up; if a DAS station were closer this could be very useful
- 21 Mobile application was way better last year with the app. It is now unuseful.
- 22 Mobile version not available for Android.
- 23 My orchard is now leased so I do not make general management decisions.
- 24 Need iPad or iPhone app back
- 25 No comment
- 26 not aware of many of these features
- 27 Please consider adding the OSU degree day SWD model data for cherries.
- 28 The mobile version is very useful for me, as it is accessible anywhere I go!
this is a great system. i think management practices discussion should have the ability to share via email.I write a scouting report for my clients and it would be nice to be able to send or print them a copy.
- 29 toda la informacion es muy util
- 30 We are new growers and just getting started. Trees will come spring 2014 so we haven't used DAS much yet
- 31 we have been relying on our consultant
- 32 will be a new grower this year but played with DAS last year to get familiar with it. Keep up the good work.

18 Do you have your own weather data from your orchard(s)?

Response	Count	Percent
Yes	49	20.7
No	188	79.3
Total	237	100.0

Missings = 60

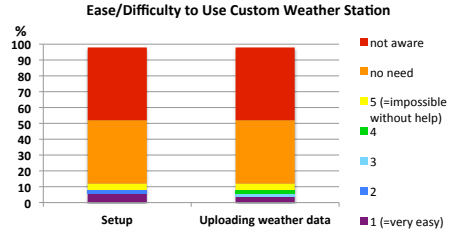


19+20 help) how easy or difficult the following steps were for you (or indicate if you did not need/want to use it or were not aware of it).

Response	1 (= very easy) #	2 #	3 #	4 #	5 (= impossible) #	I did not need/w #	I was not #	Total #
Setting up a custom weather station	3	1	0	0	2	20	23	49
Uploading my own weather data into DAS	2	0	1	1	2	20	23	49

Comments:

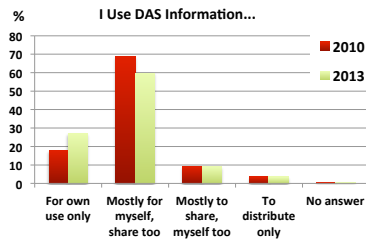
The initial setup/uploading was easy the last couple years, but this year we are having problems with it not giving any model outputs. System needs a way to be able to correct data when a mistake is made instead of having to delete the whole station and start over again.



21 Which statement applies best to your situation?

Response	Count	Percent
I only use WSU-DAS information for my own use and do not share it with others (e.g. co-workers, friends, neighbors).	84	27.0
I mostly use WSU-DAS information for myself, but share it with others too.	186	59.8
I mostly share WSU-DAS information with others, but sometimes use it myself too.	28	9.0
I only distribute WSU-DAS information to others for their use.	11	3.5
No answer	2	0.6
Total	311	100.0

Missings = 71

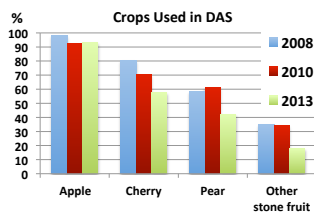


Data from DAS accounts statistics based on 609 users that used DAS in 2013-2014 at

22 Which crops do you use WSU-DAS for?

Response*	Count	Percent
Apple	537	93.1
Cherry	333	57.7
Pear	244	42.3
Other stone fruit	104	18.0
<i>Total # users = 577</i>		

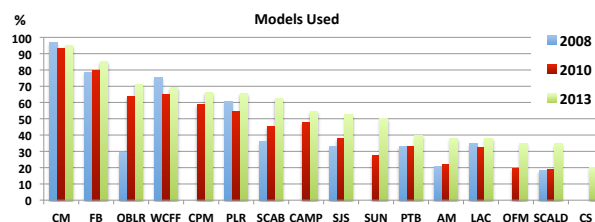
*Data from DAS accounts statistics



23 Which models do you use?

Response*	Count	Percent
Codling moth (CM)	549	95.1
Fireblight (FB)	492	85.3
Oblique-banded leafroller (OBLR)	409	70.9
Western cherry fruit fly (WCFF)	398	69.0
Cherry powdery mildew (CPM)	381	66.0
Pandemis leafroller (PLR)	379	65.7
Apple scab (SCAB)	360	62.4
Campyloasma (CAMP)	316	54.8
San Jose scale (SJS)	305	52.9
Sunburn browning of apples (SBB)	288	49.9
Peach twig borer (PTB)	230	39.9
Apple maggot (AM)	220	38.1
Lacanobia (LAC)	217	37.6
Oriental fruit moth (OFM)	202	35.0
Storage scald (SCALD)	200	34.7
Cherry shothole (CS)	116	20.1
<i>Total # users = 577</i>		

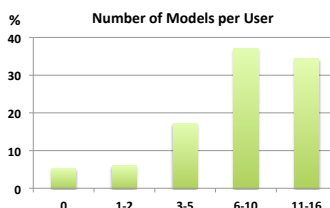
*Data from DAS accounts statistics



24 How many models do you look at?

Response*	Count	Percent
0	32	5.3
1-2	37	6.1
3-5	105	17.2
6-10	226	37.1
11-16	209	34.3
Total	577	100.0

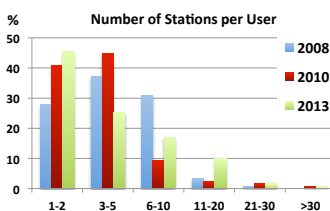
*Data from DAS accounts statistics



25 How many weather stations do you look at?

Response*	Count	Percent
1-2	263	45.6
3-5	146	25.3
6-10	98	17.0
11-20	58	10.1
21-30	9	1.6
>30 (max. 47)	3	0.5
Total	577	100.0

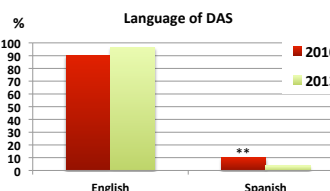
*Data from DAS accounts statistics



26 Do you use the English and Spanish DAS?

Response*	Count	Percent
English	587	96.4
Spanish	22	3.6
Total	609	100.0

*Data from DAS accounts statistics



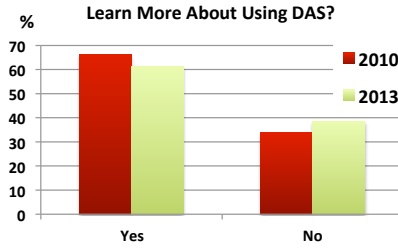
**Would you like to use DAS in Spanish in the future?

DAS User Survey 2013/2014

WSU-DAS SUPPORT

27 Would you like to learn more about how to use WSU-DAS?

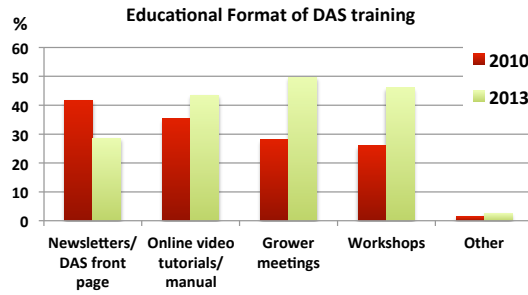
Response	Count	Percent
Yes	189	61.4
No	119	38.6
Total	308	100
<i>Missings = 74</i>		



28 What educational format would you choose for WSU-DAS training?

Response	Count	Percent
Newsletter and updates on DAS front page	54	28.6
Online video tutorials and manual	82	43.4
Grower meetings	94	49.7
Workshops	87	46.0
Other	5	2.6

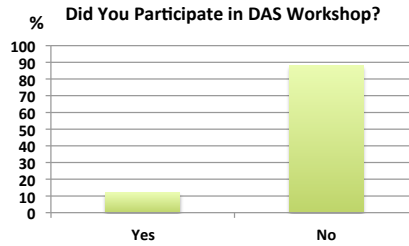
Other include: Webinar (2), iPhone app (1), printed book (1), short tips & ideas (1)



29 Did you participate in a hands-on DAS workshop/training with laptops during 2010-2012?

Response	Count	Percent
Yes*	37	12.0
No	271	88.0
Total	308	100.0
<i>Missings = 27</i>		

*3 users attended a Spanish/English language workshop



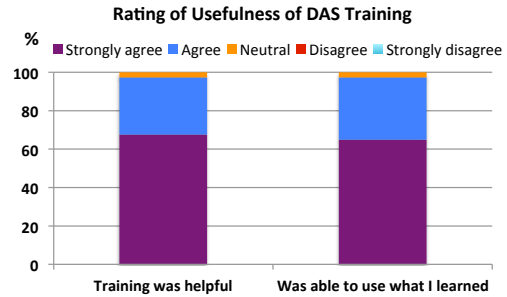
WSU-DAS SUPPORT cont.

30 How would you rate the usefulness of the DAS training you participated in?

Response	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
The DAS training was very helpful.	25	67.6	11	29.7	1	2.7	0	0.0	0.0	0.0	37	100.0
I was able to use what I learned at the workshop.	25	67.6	11	29.7	1	2.7	0	0.0	0.0	0.0	37	100.0

Comments:

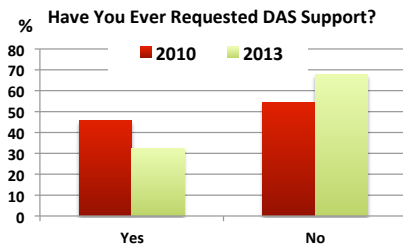
- Lack of internet band width made the training discouraging (couldn't access most of the models/manuals, etc.).
- First introduction to DAS should have spent sometime preparing. Lots to learn in short session.
- Training was useful for learning all functions.



31 Have you ever emailed or called the WSU-DAS team to request any kind of support?

Response	Count	Percent
Yes	100	32.5
No	208	67.5
Total	308	100.0

Missings = 74

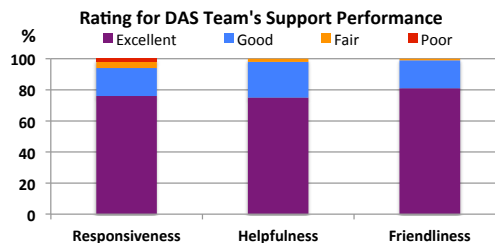


32 How would you rate the WSU-DAS team's performance?

Response	Excellent		Good		Fair		Poor		Total	
	#	%	#	%	#	%	#	%	#	%
Responsiveness	76	76.0	18	18.0	4	4.0	2	2.0	100	100.0
Helpfulness	75	75.0	23	23.0	2	2.0	0	0.0	100	100.0
Friendliness	81	81.0	18	18.0	1	1.0	0	0.0	100	100.0

Comments:

- A little slow but good
- Brad was the one helping me and he seemed very nice and concerned. However the issues with the model were not quite being resolved.
- Consummate professionals
- I have only emailed when my account would not open up and was told I needed to install Mozilla Firefox to access DAS now.
- Ute was an excellent source for help. Thanks!
- Ute has been a tremendous help!
- You all do an outstanding job and I really appreciate having access to this web site. It has made me a much better grower in that I depend on myself and do not use or need a chemical field adviser. This has enabled me to purchase chemicals at a no-field-service discount price from a distributor that delivers direct to my orchard. In addition I have now developed a feel for the codling moth model (since I began using your site in 2006) that amazes even me. Having said that, I honestly think I could move forward on my own without future access to this site based on very detailed record keeping that we have maintained over the past eight years.



DAS User Survey 2013/2014

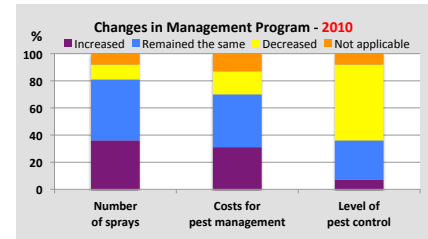
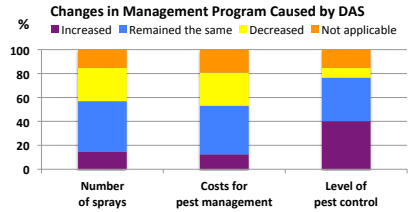
IMPACT OF WSU-DAS

33 indicate only the effects of using DAS (not the effects from changing to new pesticides because of the Guthion phase-out or other changes.

Response	Increased		Remained the same		Decreased		Not applicable		Total	
	#	%	#	%	#	%	#	%	#	%
Number of sprays	34	14.5	99	42.3	65	27.8	36	15.4	234	100.0
Costs for pest management	29	12.4	95	40.6	65	27.8	45	19.2	234	100.0
Level of pest control	94	40.2	85	36.3	19	8.1	36	15.4	234	100.0

Comments:

- Cost and knowledge of all products available.
- Cost was worth it because it has saved our orchard from the fire blight that devastated it for the first time 5 years ago.
- DAS doesn't change my recommendations in a big way, but it does make me much more efficient and accurate in making disease and insect management decisions.
- DAS is a very useful tool to help me verify that I am doing the right thing and using minimal chemicals.
- Haven't planted yet. New growers starting in 2014
- I find the models very useful, and it lets me know when a particular pest is going to be a problem in a given area.
- I have not used DAS yet
- I have used DAS since I started in the orchard.
- I think it helps time the sprays better that were being used.
- I used to run my own temp loggers, DAS has been a huge time saver. More info, easier to access, but very hard to say whether costs have gone up or down. Every year is different!
- Not 100% sure on pest control.
- only have orchard for two years (old apple orchard w/ peach, cherry, etc.) and started using system in first year
- still don't understand how the DAS scab model works - the DAS scab model is not consistent with the Mills table which I've used for decades.
- the system enables us to better time our applications which has probably led to fewer applications...mostly helps with effectiveness
- This program helps be more confident with my spray program. thank you! I think that I am doing a better job now.
- used DAS to verify my decisions/programs, and to learn more.
- Very helpful for timings
- We don't see our fieldman as often as we did, so this additional information is very helpful, especially for timing of sprays.
- We have a unique situation of small, irregularly shaped blocks with extra-ordinary CM pressure, Leaf rollers being introduced from newly planted nursery stock plus on going issues with rosey apple aphid that is resolved with esteem / assail programs.
- We need the iPhone and iPad app back. Did not use it on computer very much
- without das I would have missed fireblight sprays

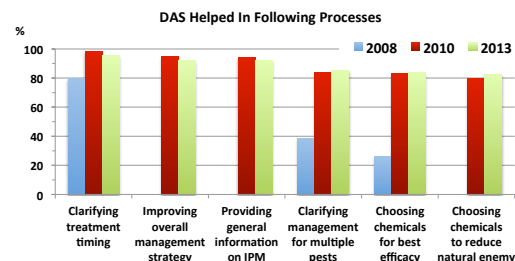
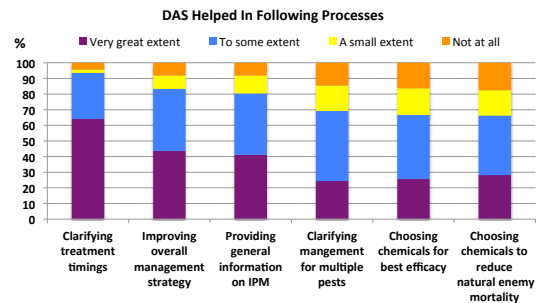


34 To what extent did WSU-DAS help you in the following processes?

Response	Very great extent		To some extent		A small extent		Not at all		Total	
	#	%	#	%	#	%	#	%	#	%
Clarifying treatment timings	150	64.1	69	29.5	5	2.1	10	4.3	234	100.0
Improving my overall management strategy	102	43.6	93	39.7	20	8.5	19	8.1	234	100.0
Providing general information on Integrated Pest Management (IPM)	96	41.0	92	39.3	27	11.5	19	8.1	234	100.0
Choosing chemicals to reduce natural enemy mortality	66	28.2	89	38.0	38	16.2	41	17.5	234	100.0
Choosing chemicals for best efficacy	60	25.6	96	41.0	40	17.1	38	16.2	234	100.0
Clarifying management for multiple pests	57	24.4	105	44.9	38	16.2	34	14.5	234	100.0

Comments:

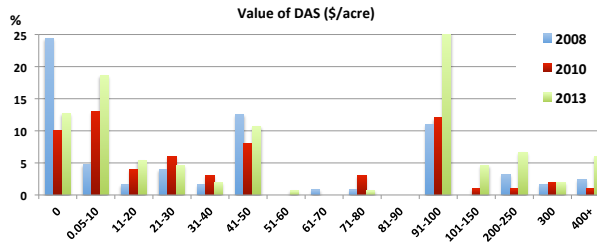
- Again I didn't find much help with organic recommendations. However now I'm thinking I may just not know how to use DAS to its ability
- apenas me estoy familiarizando con das
- es otra persona la que se encarga de chequear las plagas y dar las recomendaciones
- Excellent tool. Please keep it available!
- Great job in these areas!
- I already understood IPM and its benefits, but DAS really makes it easy to implement and maintain. Multiple pest effects, and natural enemy conservation functions are great!
- I have always been aggressive about ipm using all tools available and investigating new approaches
- I have not used DAS yet
- I rely primarily on advice from warehouse and chemical supplier field-staff.
- I think DAS will be very helpful once we plant
- I used it more when you had the iPhone app
- information would have been more useful if I would spend more time in the office reviewing the website
- More integration of beneficial's and impacts to and from into the management program.
- new to this
- projections for treatment timing supplied through DAS is inconsistent and quite frankly does not make much sense.
- the answer I need is not applicable because i havent grown or treated yet



35 What value per acre do you estimate that WSU-DAS provides to your operation?

Response (\$/acre)	Count	Percent
0	19	12.7
0.05-10	28	18.7
11-20	8	5.3
21-30	7	4.7
31-40	3	2.0
41-50	16	10.7
51-60	1	0.7
61-70	0	0.0
71-80	1	0.7
81-90	0	0.0
91-100	38	25.3
101-150	7	4.7
200	10	6.7
300	3	2.0
400+	9	6.0
Total	150	100.0
Missing = 150		

Average 2013: \$70.44/acre*
 Average 2010: \$70.45/acre*
 Average 2008: \$74.56/acre*
 *values > \$0 and < \$300



Comments:

- 1 1000nds
- 2 50-200/ac
- 3 Again I need to start using DAS so I may be able to answer your survey correctly
- 4 Because I don't use it anymore because there is no iPhone or iPad app
- 5 Doesn't apply
- 6 Don't know
- 7 efficient timing
- 8 How much does it cost to use a chemical but miss the timing and have it be ineffective?
- 9 I did not include a number above as I use the system for monitoring for commercial growers. I am sure that it saves the growers I directly serve \$10,000 at a minimum.
- 10 I do not have the data to suggest a \$ amount
- 11 I do not no
- 12 I don't know. Don't keep that close of tab on this.
- 13 I haven't any idea!
- 14 I may be able to reduce one cover spray due to timing. This would carry through to all te tree fruit that I consult on, with my growers.
- 15 I save at least a hundred dollars per acre in reduced chemical costs every year based on my no-service chemical discount. I probably save at least that much more per acre because the field adviser is not there recommending more expensive chemicals that I maybe do not need to apply. I've always thought field advisers were in a difficult position that only created a conflict of interest based on their commission incentives.
- 16 If there is a cost I will no longer use the system. I already support WSU through my crop assessments and taxes
- 17 impossible to calculate....right now I am only using foot sox for individual apples, trichogramma wasps, and mating disruptors.....this is done on something of an experimental level.
- 18 Is this an ego question or an invoice?
- 19 It is my first year owning the orchard so I'm unsure how much I save using DAS compared to not.
- 20 No idea
- 21 no idea!
- 22 no tengo idea
- 23 No trees yet
- 24 Not directly but it is a helpful tool and certainly is a critical piece of the puzzle.
- 25 not sure
- 26 Not sure of the answer to this question.
- 27 Priceless. The cost of devastating pests and disease can be unrecoverable.
- 28 Reducing crop loss 0.5% \$300 and saving in pesticide materials of \$200
- 29 cost to maintain this site? How much did the growers pay for the research? What is the value of working together as we do? WSU & Industry, a great pair.
- 30 That is a very difficult question to answer.
- 31 That's an arbitrary dollar figure.
- 32 This is a hard number to pick out. When it works it is priceless when it fails well it is my name on the bottom of the recommendation.
- 33 This is extremely hard to put a dollar amount, as it varies from site etc.
- 34 This is very hard to calculate or know.
- 35 This program gives me as a grower more confidence in what I am doing while attempting to producing a crop.
- 36 typically use DAS to verify my own orchard monitor - the DAS apple scab model would hugely increase my fungicide use if I were to follow it (once again I don't understand how the infection timing is generated)
- 37 very difficult to answer
- 38 very difficult to answer. Also pay for a field consultant and trapping service.
- 39 Very difficult to tell. Fireblight models were probably the most effected, but that bugger is hard to nail down regardless of the information. Will probably be more valuable once I am more informed on how to use the information.

36 What other models would you like to see added to WSU-DAS?

Response	2013	2010	2008
Spotted wing drosophila	19	5	
Brown marmorated stink bug (and other stink bugs)	11	1	
Pear psylla	6	76	4
Pollen tube and degree day projection calculator	6	3	1
Apple powdery mildew	5		6
Beneficials/ predator models (RAA predators, lacewings, ladybugs, etc.)	5	5	3
Aphids (Black Cherry Aphids, WAA, RAA)	4	2	1
Grapes, grape powdery mildew, grape leaf skeletonizer	3		
Brown rot (<i>Monilinia fruticola</i>)	2		
Irrigation model/crop water use calculator	2		1
Mealy bug (apple and grape)	2	1	2
Mites	2		
Oriental fruit moth*	2		5
Ambrosia or shot hole borer	1		1
Apricot	1		
Chemical thinning of apples	1		
Cherry powdery mildew*	1		4
Christmas tree models	1		
<i>Coryneum</i> blight on cherry (cherry shothole)**	1		
<i>Coryneum</i> blight on peaches and apricots	1		
Eye-spotted bud moth	1	2	
Fix cherry mildew model so it starts automatically	1		
Leafminers	1	1	
Peach tree borer	1		1
Peach twig borer browning of apples	1		
Pear scab	1		
Pears	1		
Small cherry disease	1		
Small fruits	1	1	1
Soil temperatures	1		
Spiders (mites?)	1		
Thrips (western flower thrips)	1	1	1
Western cherry fruit fly*	1		
Apple clearwing		1	
Bee activity		74	
Fruit growth rates/bloom phenology		4	
Leaf wetness		1	
Sunburn***			1
Thinning plant growth			1

*added in 2009 **available on DAS ***added in 2010

37 What new features would make WSU-DAS more convenient, useful and valuable for you?

Answers

- 1 A mobile app that works. Go back to last years.
- 2 A mobile app would be nice
- 3 A summary of current data table for selected insects and diseases for each site in my profile. that would save me a lot of time on Monday mornings.
- 4 A user guide explaining how to interpret data and how to apply it or workshop explaining all the information and how navigate through it and make decision. I have a windows 8 phone
- 5 A weather station for my site
- 6 Add a DAS application for iphone..
- 7 Add as much new information on the newest products as is possible.
- 8 Add pesticide label information
- 9 Already mentioned
- 10 An app for android or ios
- 11 An iPhone app instead if logging in. Would help out in the orchard.
- 12 At the moment, I can't think of any. The continuing evolution of the program is great. Please keep up the great work. Only suggestion that I could make to improve the system is more outreach to get more growers utilizing the system. The accuracy is
- 13 Be able to edit/correct weather data that we've uploaded to a personal weather station when I mistake is discovered.
- 14 can't think of any - all bases are covered
- 15 cant think of anything
- 16 Chart enhancement. Being able to adjust chart parameters to better reflect population stages in my own orchards.
- 17 Could critical automatic alerts for chosen pest control timing be sent via email or to a smart phone? Giving the user a couple days advance warning of impending doom if action is not taken....
- 18 Dando alertas sobre el clima y quimicos nuevos
- 19 degree day for fruit on this site and the a projection for the next 7 days and keep the fireblight graph
- 20 Don't know
- 21 En lo personal, por ahora estoy enfocado en el manejo de la huerta, como poda, descuate,entrenamiento, riego y cosecha, me ayuda mucho ver las temperaturas para el control de las heladas,el control de las quemaduras del sol y las graficas para poder
- 22 Great job Guys I love and depend on it. Thank you!
- 23 Haven't used it enough yet to tell.
- 24 I am very satisfied with all the information that DAS provides. I just wish my station (station 2 Plymouth area) could have more apple and cherry related models available.
- 25 I can't think of any at this time, thanks.
- 26 I do not no
- 27 I expect great new things, but can't imagine what they will be.
- 28 I had problems with the Fire Blight model. Could not get it to acknowledge that I had blight in my orchard the previous year.
- 29 I like it just the way it is. So if it ain't broke, don't fix it! :-)
- 30 I need to begin utilizing DAS for its benefits before I can respond to this question
- 31 I need to look at the features that I was unaware of first.
- 32 I work in an area with poor internet access via mobile, very little 3G and 4G. In years past the iphone app has worked well for accessing model data on the go on my iphone. With the app discontinued this season it has been impossible to efficiently use DAS on the go, as my cell connection is not fast enough to view the entire web site. Would WSU-DAS consider going back to an app for
- 33 I would have to ponder this question during the winter...that said, the more organic options suggested the better for me individually

- 34 I would like to be able to compare seasonal weather information for various growing areas. Compare total seasonal evapotranspiration needs for each (a relative notion of heat intensity/wind/moisture from 2-5 locations say Tonasket Wenatchee Valley Wapato Mattawa Hood river Medford Being able to see the comparison of seasonal heat units days of sunshine diurnal temp comparisons differences in highs and lows and moisture including over the winter. I believe this would be valuable to Honeycrisp and Pear growers to understand physiological stresses and differences in insect pressures by region [contact]
- 35 iPad and iPhone app
- 36 It seems to be working well. More stations in the Okanogan country would be helpful.
- 37 It would be helpful if you could have more information (links/references) to the actual models, i.e. the degree-days base temperature, the starting date or biofix, the number of accumulated degree days for various events, etc. I have my own weather station and my own system for keeping track of accumulated degree-days, etc, so rather than entering all my weather station data
- 38 It's pretty darn good right now.
- 39 Just functionality of the current site
- 40 Linear composite of expected population(life cycles)from a chosen list of pests.
- 41 Maybe add a forum area with growers and experts.
- 42 Mobility is key key key... Simplify iPhone and mobile use.
- 43 More clearly explain how to get the DAS on my mobile device-
- 44 More weather stations or access to noaa generated data integrated into the system.
- 45 Na
- 46 New on line efficacy and spray guides charts.
- 47 no aplicable
- 48 none
- 49 None that I can think of at this moment. You guys are doing a good job.
- 50 not sure
- 51 Not sure. It is so useful now and I have used so few of the things that are available on it.
- 52 Plan to talk with other consultants after season and will respond with comments and suggestions for 2013-2014.
- 53 powdery mildew model
- 54 Predator models - to help facilitate timings for predator release ie how early can I successfully release ladybugs? How late should I wait for lacewing release?
- 55 Push notifications for fire blight alerts
- 56 Que nos diera boletines o avisos inportantes por mensajes
- 57 Real time custom weather station input Off line insect trap count recording
- 58 since energy conservation is a big thing it would be very useful if when making your recommendations to the DAS system that it took energy conservation into consideration for spray timings amounts and irrigation scheduling
- 59 The models should be integrated into AWW
- 60 The website is great. If there were notices or online training as to what was available and how to use it, I would probably benefit more from the service.
- 61 This is my first time using this, so I'm not yet sure.
- 62 To me, it works just fine the way it is right now.
- 63 todo esta bien. gracias
- 64 Upgrade iPhone connection support
- 65 User interface is just not intuitive. Many of the tables are difficult to read/compare while scrolling through different options. Where is the phone app?
- 66 Weather stations within orchards to reflect that environments data.
- 67 Works fine as is.
- 68 works well for me as is
- 69 You are passed my ability

38 Do you have any other comments you would like to share about WSU-DAS?

Answers

- 1 As a new grower we are very happy to have DAS to help us make informed decisions and glad we won't have to solely rely on our fellow growers for advice. I think we already ask them too many questions. Thanks for all ur good work. Robby and Anita Felker at A and R orchards south of Oroville
- 2 Bring back the mobile app.
- 3 Don't make the survey pop up for new users!
- 4 es una erramienta muy util para los agricultores
- 5 Excellent program!!!
- 6 Glad that DAS is available to the industry. Thank you.
- 7 Great and useful program
- 8 great help to growers and consultants
- 9 Great system
- 10 Great Work!!
- 11 have not used DAS for some time because of having MS browser and not compatible, which have changed now, so will try again. Thank you.
- 12 I also use this info to help gardeners in Portland and share on their www.homeorchardsociety.org garden forum website. I use it to dialog with other Seattle Tree Fruit hobbyists. I use it to help advise fruit tree activists www.cityfruit.org as to when is the appropriate time to put foot sox on individual apples in the Seattle area. My previous answers on this survey may not reflect how much I appreciate the website by indicating the amount in which I use this website, but it is still quite valuable to me and I hope it continues to be offered. ...Definitely.
- 13 I am now taking care of our small Rainier orchard and am feeling a bit overwhelmed at everything I need to learn. This is an amazing tool! I'm feeling a bit more confident in what and when I'm supposed to spray.
- 14 I believe I have covered just about everything in previous comments. However, I would like to take this opportunity to say "thank you very much" for this outstanding service.
- 15 I enjoy using it. It helps take the guess work out of consulting. It allows me to target sprays more effectively throughout the season.
- 16 I have a very small orchard and direct market my fruit. Getting advise from field men is very difficult. WSU-DAS has been a very valuable tool for my pesticide application decisions. Thanks.
- 17 I have not used it properly and it has cost me. I get the first ovicide on timely but have lost production to the second generation flight of codling moth. I am not very familiar with the program and log on so infrequently that I forget how
- 18 I really appreciate it and use it. I can not count on/feel confident with my fieldman. So WSU is great!
- 19 I use DAS to assure that my leased orchard is receiving necessary disease and pest control management. Fireblight modeling (read timing) is very useful.
- 20 I use it primarily to monitor my research plots for weather and some pest predictions.
- 21 I use the system for the timing of sprays and keeping tract of trends as it relates to weather patterns.
- 22 Invaluable tool which I and other consultants use daily.
- 23 It is complicated enough that I believe it helps me as a consultant maintain job security. My case is unusual as I work with many medium size producers focused on a specific crop. This is probably not the case for consultants who work with large managed
- 24 It's a great system, keep up the good work, thanks.
- 25 Just to thank you guys for the great service that WSU-DAS provides.
- 26 just work to make an app for iphones
- 27 Keep it up. It has become a significantly better tool over the past several years.
- 28 Keep up the Fantastic work! Best Wishes and thank you!
- 29 Keep up the great job, thank you!
- 30 Keep up the great work!
- 31 love it
- 32 Muchas gracias por su servicio
- 33 Nice job. Very valuable and useful for quick information.
- 34 no

- 35 No
- 36 No Thank you
- 37 none
- 38 None
- 39 nope
- 40 Not at this time. Please keep WSU-DAS available and current! THANKS!!!
- 41 Not useful unless there is the iPhone and iPad app
- 42 nothing further
- 43 Really hard to put a \$ value on the last question Keep up the good work, and Thanks
- 44 really need this service in my business... cant do it right without this data and thank you!
- 45 Remember to delete this survey.
- 46 Super, thank you
- 47 Thank you
- 48 Thank you. This program is very helpful.
- 49 Thanks again This is great stuff!
- 50 thanks for a great tool!
- 51 Thanks for being there
- 52 The D.A.S. will be great for new people coming into agriculture . It has been a help to those of us near going out . Our company has an internship program for young people entering agriculture . I encourage them to use this program . When you advise to farm you need the weather every day. Thank you
- 53 Very helpful in making pest management decisions.
- 54 very valuable service
- 55 Wonderful tool but it is not at all intuitive. Still frustrating to get the information I need - I've been using it for several years and just found out a whole lot more through this survey. Keep up the good work and happy growing!
- 56 Wonderful tool that I could not do without in present conditions of greater regulatory scrutiny, slimmer profit margins for growers, higher quality requirements.
- 57 work with growers in trials for feedback to improve your system you have a good start but the interface application integration needs improvement for speed
- 58 Would like to see models for the small fruit industry.
- 59 WSU-DAS is a fabulous resource for fruit growers: concise, current, vital information is readily available 24/7.
- 60 WSU-DAS is a very useful tool and I enjoy using it very much. Keep up the good work!
- 61 You have done wonders. It's by far the best anywhere.
- 62 You should have a social scientists help you with survey writing. That aside, most of the tree fruit folks in the valley, and all of the non-tree fruit ag groups use AWN, so why does DAS still exist?