

Daniels Survey Analysis

December 20, 2010

Executive Summary

This survey was conducted to learn more about brand perceptions, preferences and attitudes related to the fertilizers that greenhouse growers use routinely in production. Among the more than 700 Ball customers who responded to this survey, Peters water soluble fertilizers and its sister product Scotts controlled release Osmocote shared the highest aided awareness (90%). Peters was identified as the primary fertilizer used by the greatest number of growers (32%). Daniels was 4th on the list of primary products (5.4%). Growers indicated that the most used water soluble fertilizer formulation is 20-10-20, followed by 20-20-20.

Growers identified, in rank order, the following key attributes they considered when choosing fertilizers: effectiveness (performance), quality and ease of use. Based on these responses it will clearly be necessary to prove Daniels' effectiveness, versus synthetic water soluble fertilizers, in order to convince growers to convert from their current brands.

The two most pressing fertilizer-related issues identified by the greatest number of growers were: "altered pH levels resulting from fertilizer applications" and "poor crop performance due to poor nutrition." On the other hand, both issues were identified by an almost equal number of growers as, "not a problem." The results from this question will require further discussion and analysis.

The vast majority of growers indicated they are concerned about the impact of their operation on the environment. Environmental concerns among primary users of Peters vs Daniels is almost equal, so there appears to be no correlation between the intensity of their concerns and the product they most frequently use. It is worthwhile noting that some of the sustainable practices they employ might be enhanced by the use of Daniels.

The survey data that follows, gathered with SurveyMonkey an internet-enabled do-it-yourself survey tool, was an effective and inexpensive way to obtain insight for our future product and market development and product promotional efforts.

Survey Findings

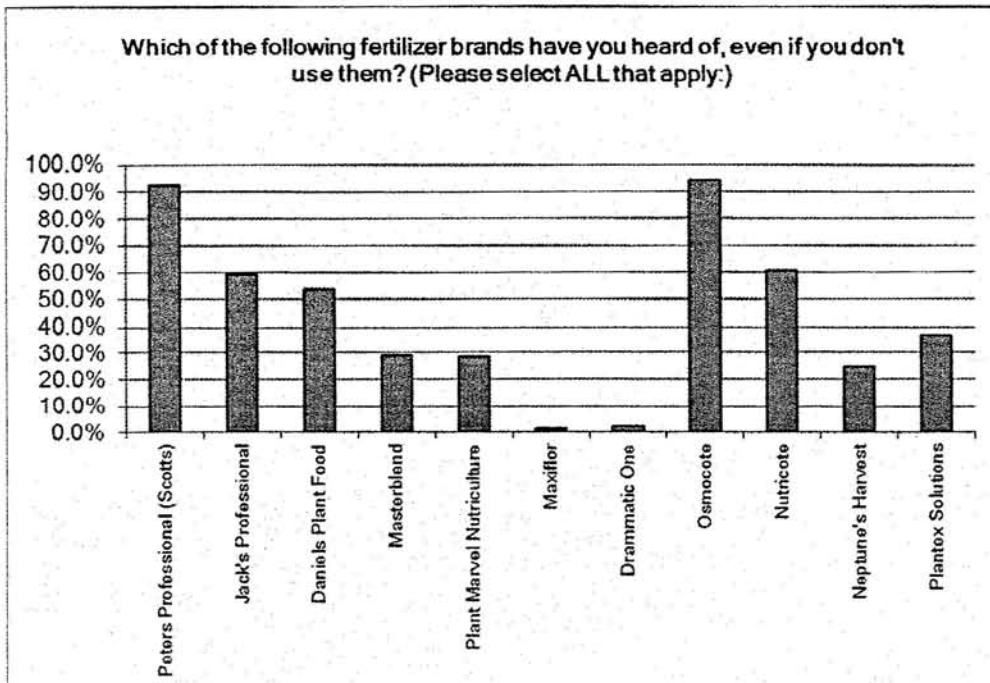
Which brands do they know and use?

At the top of the ranking in our survey of wholesale growers and grower/retailers throughout the U.S. and Canada as the fertilizer they currently use in production, controlled release Osmocote (53.6%) tied with Peters water soluble fertilizers (53%)(both are Scotts products). "Other," which included a long list of regional, local brands and self-mixed concoctions, was cited by 27.4% of the respondents. Next was Jack's Professional, then Nutricote, another slow release granular, and mid-way down the list of 12 aided choices was Daniels Plant Food, used by 13%. We recognize there is probably some response bias towards Daniels inherent in using the Ball customer list for this survey.

Very little use was reported for the two listed organic-based competitors, Drammatic One and Neptune's Harvest. Note that Maxiflor was a ghost brand.

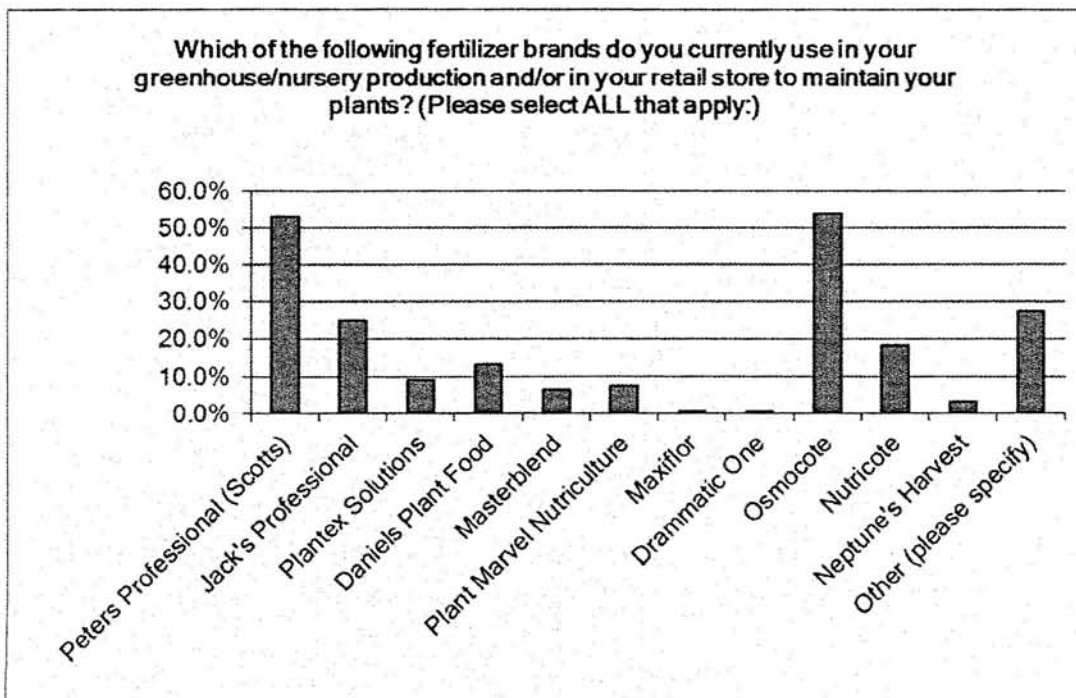
Brand awareness

With regards to aided awareness of specific fertilizers brands among water soluble and controlled release types, Peters and Osmocote were far and away the market leaders; each was recognized by more than 90% of respondents. Nutricote was strong at 61%, Jack's followed closely behind at 60%, then came Daniels with a surprisingly high 54%. Again, consider the list source. Clearly awareness (hopefully positive associations) and use are not the same, but Daniels' already high awareness could be an asset in gaining trial use and eventual conversion.



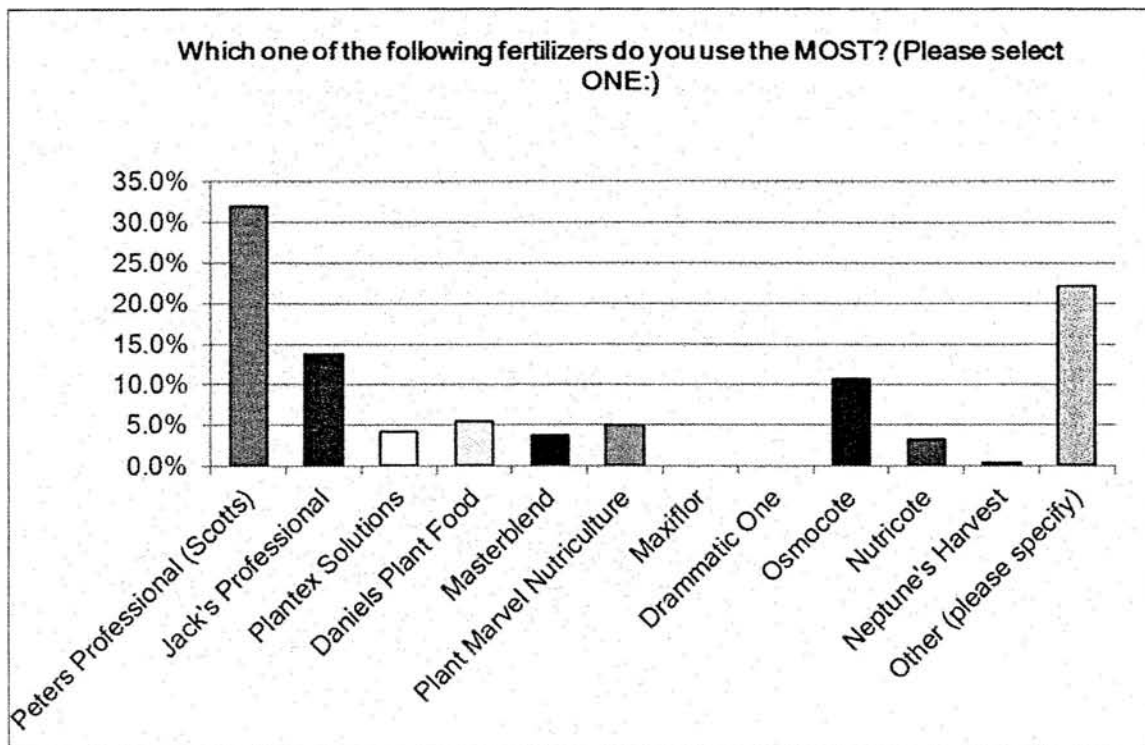
Which brands do they use?

Given the opportunity to identify all the brands growers use from the list provided, plus others they could write in, it became clear that growers use multiple brands. The approximately 700 participating growers responded with 1489 choices, the equivalent of more than two brands per grower. The ranking of those choices are shown on the table below.



Preferred brand

When asked which product they used the most of, Peters jumped to the top of the list with 32%. It led "other" by more than 10 points and was more than twice Jack's. Osmocote dropped to 10.7% and Nutricote to just 3.2%, which indicates that while popular, they are a specialty item for greenhouse production, rather than a staple of production. "Other" still held 22.1%, Jack's 13.8%, and surprisingly, Daniels at 5.4%, nosed out several other national water soluble brands including Plantex, Plant Marvel and Masterblend. Two other organic-based products, Drammatic and Neptune's Harvest barely registered, indicating that they are specialty items and additionally, not well known. The obvious gap for all brands, between general use vs preferred use indicates either low loyalty factor, or, more likely, growers' recognition that they must use multiple fertilizers to achieve their production objectives. This is indicated by the fact that 700 respondents submitted almost 1500 responses. For example, while Daniels is used by 13% of growers, only 5.4% identified Daniels as their preferred brand.



Preferred formulation

Reflecting the high use of Peters and Jack's, not surprisingly, and in spite of the confusing plethora of formulations offered by the makers of water soluble fertilizers, the most popularly used water soluble formulation is 20-10-20, followed by 20-20-20 (35% combined). The most listed slow release formulation

was 14-14-14. This data was derived by asking growers to, unaided; list N-P-K values: “Based on your fertilizer brand of choice, which formulation do you use the most?” The number of Daniels formulations growers listed that don’t exist underscores the confusion about fertilizer formulations and generally casts some doubt on the accuracy of the unaided responses provided by growers. On the positive side, at least 25 of 38 growers accurately listed Daniels 10-4-3 and one listed Pinnacle 3-1-1; a couple more came close, and the remaining others offered a hodge-podge of numbers, including two who listed Daniels 20-10-20. Here’s more evidence that it’s important to offer performance and at the same time “keep it simple.”

Why they choose their brand?

In an effort to determine why growers use their identified primary brand respondents were asked the following: “Rank the importance of each of the following qualities when purchasing your fertilizer of choice. (1st = MOST important, 7th = LEAST important. Use each number ONLY ONE TIME)” It can also be inferred that their responses reveal the main factor that must be linked to a given product if they might consider switching to it from their current primary brand. Not unexpectedly, but overwhelmingly, the quality of greatest importance, across all products, water soluble, slow release and organic-based fertilizers is identified as “effectiveness,” which we also presume to call “performance.” The second most important attribute “quality,” trailed significantly behind effectiveness.

Rank the importance of each of the following qualities when purchasing your fertilizer of choice. (1st = MOST important, 7th = LEAST important. Use each number ONLY ONE TIME:)

Answer Options	1st (MOST important)	2nd	3 rd	4th	5th	6th	7th (LEAST important)	Response Count
Price	71	126	174	153	68	34	21	647
Effectiveness	374	139	58	41	12	11	6	641
Loyalty	6	18	34	53	119	219	158	607
Ease of use	63	113	159	176	86	27	8	632
Quality	144	221	138	83	30	12	6	634
Nutritional testing offered	10	28	52	95	211	138	80	614
Sales Rep Endorsement	5	14	27	28	76	147	332	629
Please list if any additional reasons you purchase your fertilizer of choice:								67

answered question

689

Among the leading brands effectiveness topped quality by 2.5-3.0 times the number of respondents. The third most important factor was ease of use. This 1-2-3 ranking of importance was clearly evident when we cross tabulated the data specifically comparing the growers’ primary brands against the selection factor, as shown below.

Top Fertilizer Chosen, Sorted By Top Purchase Influencer (Q: #8 and Q: #10)

Count of Top Fertilizer		
Top Fertilizer	Purchase Influencer - 1st	Total
Peters Professional (Scotts)	Effectiveness	131
	Quality	47

	Ease of Use	25
	Price	15
	Sales Rep Endorsement	4
	Nutritional Testing Offered	4
	Loyalty	1
Peters Professional (Scotts) Total		227
Other (please specify)	Effectiveness	81
	Quality	38
	Ease of Use	16
	Price	14
	Loyalty	3
	Nutritional Testing Offered	1
Other (please specify) Total		153
Jack's Professional	Effectiveness	48
	Quality	22
	Price	16
	Ease of Use	6
	Nutritional Testing Offered	3
Jack's Professional Total		95
Osmocote	Effectiveness	38
	Ease of Use	16
	Quality	15
	Price	7
	Nutritional Testing Offered	1
Osmocote Total		77
Plant Marvel Nutriculture	Effectiveness	23
	Quality	7
	Price	5
	Ease of Use	2
	Loyalty	1
Plant Marvel Nutriculture Total		38
Daniels Plant Food	Effectiveness	28
	Quality	6
	Ease of Use	2
Daniels Plant Food Total		36

**Top Fertilizer Chosen, Sorted By 2nd Purchase Influencer
(#8 and #10)**

Count of Top Fertilizer		
Top Fertilizer	Purchase Influencer - 2nd	Total
Peters Professional (Scotts)	2nd – Quality	75
	2nd - Ease of Use	44
	2nd – Effectiveness	42
	2nd – Price	40
	2nd - Nutritional Testing Offered	12
	2nd – Loyalty	7

	2nd - Sales Rep Endorsement	5
	#N/A	4
Peters Professional (Scotts) Total		229
Other (please specify)	2nd - Quality	48
	2nd - Effectiveness	33
	2nd - Price	29
	2nd - Ease of Use	26
	#N/A	11
	2nd - Loyalty	6
	2nd - Nutritional Testing	
	Offered	4
	2nd - Sales Rep Endorsement	2
Other (please specify) Total		159
Jack's Professional	2nd - Quality	27
	2nd - Price	22
	2nd - Effectiveness	21
	2nd - Ease of Use	12
	#N/A	6
	2nd - Nutritional Testing	
	Offered	5
	2nd - Loyalty	4
	2nd - Sales Rep Endorsement	1
Jack's Professional Total		98
Osmocote	2nd - Effectiveness	21
	2nd - Quality	20
	2nd - Price	17
	2nd - Ease of Use	10
	2nd - Nutritional Testing	
	Offered	4
	#N/A	2
	2nd - Sales Rep Endorsement	2
	2nd - Loyalty	1
Osmocote Total		77
Plant Marvel Nutriculture	2nd - Quality	16
	2nd - Price	9
	2nd - Effectiveness	9
	2nd - Ease of Use	3
	2nd - Nutritional Testing	
	Offered	1
Plant Marvel Nutriculture Total		38
Daniels Plant Food	2nd - Quality	13
	2nd - Ease of Use	10
	2nd - Price	5
	2nd - Effectiveness	4
	#N/A	3
	2nd - Sales Rep Endorsement	2
	2nd - Nutritional Testing	
	Offered	1
Daniels Plant Food Total		38

Top Fertilizer Chosen, Sorted By 3rd Purchase Influencer (#8 and #10)

Count of Top Fertilizer		
Top Fertilizer	Purchase Influencer - 3 rd	Total
Peters Professional (Scotts)	3rd - Ease of Use	49
	3rd - Effectiveness	13
	3rd - Loyalty	16
	3rd - Nutritional Testing Offered	24
	3rd - Price	55
	3rd - Quality	45
	3rd - Sales Rep Endorsement	9
	#N/A	18
Peters Professional (Scotts) Total		229
Other (please specify)	3rd - Ease of Use	26
	3rd - Effectiveness	14
	3rd - Loyalty	7
	3rd - Nutritional Testing Offered	14
	3rd - Price	50
	3rd - Quality	33
	3rd - Sales Rep Endorsement	3
	#N/A	12
Other (please specify) Total		159
Jack's Professional	3rd - Ease of Use	30
	3rd - Effectiveness	12
	3rd - Loyalty	4
	3rd - Nutritional Testing Offered	8
	3rd - Price	18
	3rd - Quality	21
	3rd - Sales Rep Endorsement	3
	#N/A	2
Jack's Professional Total		98
Osmocote	3rd - Ease of Use	18
	3rd - Effectiveness	10
	3rd - Loyalty	4
	3rd - Nutritional Testing Offered	2
	3rd - Price	21
	3rd - Quality	19
	#N/A	3
Osmocote Total		77
Plant Marvel Nutriculture	3rd - Ease of Use	12
	3rd - Effectiveness	2
	3rd - Loyalty	1
	3rd - Nutritional Testing Offered	1
	3rd - Price	12
	3rd - Quality	7
	3rd - Sales Rep Endorsement	2
	#N/A	1
Plant Marvel Nutriculture Total		38

Daniels Plant Food	3rd - Ease of Use	10
	3rd - Effectiveness	2
	3rd - Nutritional Testing Offered	3
	3rd - Price	7
	3rd - Quality	8
	3rd - Sales Rep Endorsement	5
	#N/A	3
Daniels Plant Food Total		38

Fertilizer issues

We asked growers to rate the issues they encounter. Paradoxically, some of the “Biggest issues” identified by some growers, were identified by an equal number of others as “I don’t have this issue.” For example, the number one biggest issue, “Poor crop performance due to poor nutrition,” was also cited “not an issue” by a nearly equal number of growers.

Rate each of the following fertilizer related issues as they pertain to your use of fertilizers in your business practices. (1 = Biggest issue, 5 = Smallest issue:)

Answer Options	1 (BIGGEST issue)	2	3	4	5 (SMALLEST issue)	I don't have this issue	Response Count
Time/effort used mixing/making solution	63	87	120	94	149	138	651
Having to use warm water to make solution	43	49	75	59	108	298	632
Having to keep the solution agitated	51	59	73	76	102	278	639
Having to use different formula variations	56	111	109	96	100	166	638
Fertilizer dye stains	23	43	75	64	156	270	631
Residue left by fertilizer on plant foliage	44	71	96	94	115	216	636
Having to rinse lines after applications	23	36	39	59	116	354	627
Having to leach salt from soil	52	66	110	94	120	207	649
Concern over fertilizer nutrients being derived from synthetic sources	36	54	73	76	144	244	627
Altered pH levels resulting from fertilizer applications	128	128	109	71	67	139	642
Maintaining fertilizer calibrations	64	90	118	93	100	174	639
Poor crop performance due to poor nutrition	180	91	71	59	70	171	642
Crop damage due to over-fertilization	60	70	79	72	122	242	645
							30

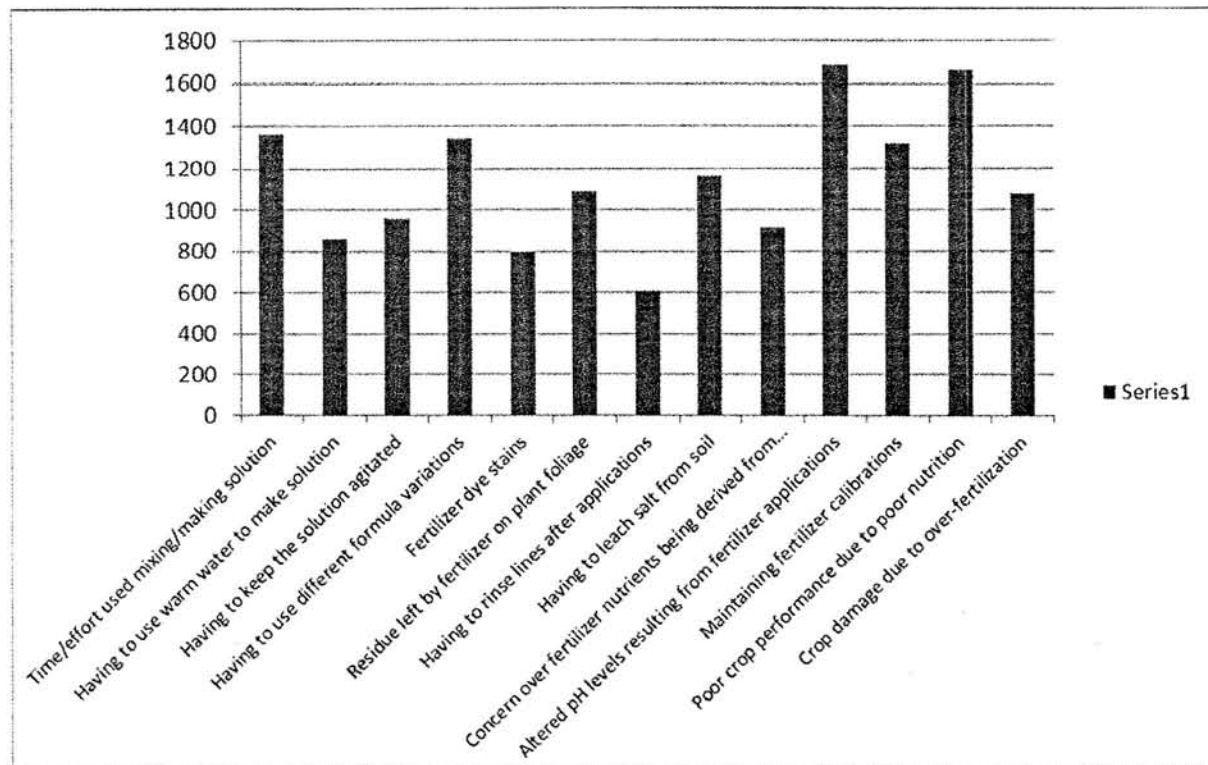
answered question

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This question reveals the hierarchy of issues and concerns that reveal opportunities for Daniels and will help the company focus its marketing messaging.

A look at the data weighted which is ranked without considering the “not an issue” response provides another way of evaluating grower hot buttons. Note there are several issues of concern that are addressed in a positive manner by Daniels such as, “Altered pH levels resulting from fertilizer applications.” On the other hand there are several issues considered important by Daniels that aren’t

considered big issues by many growers such as: "Fertilizer dye stains," and, "Having to use warm water to make solution."

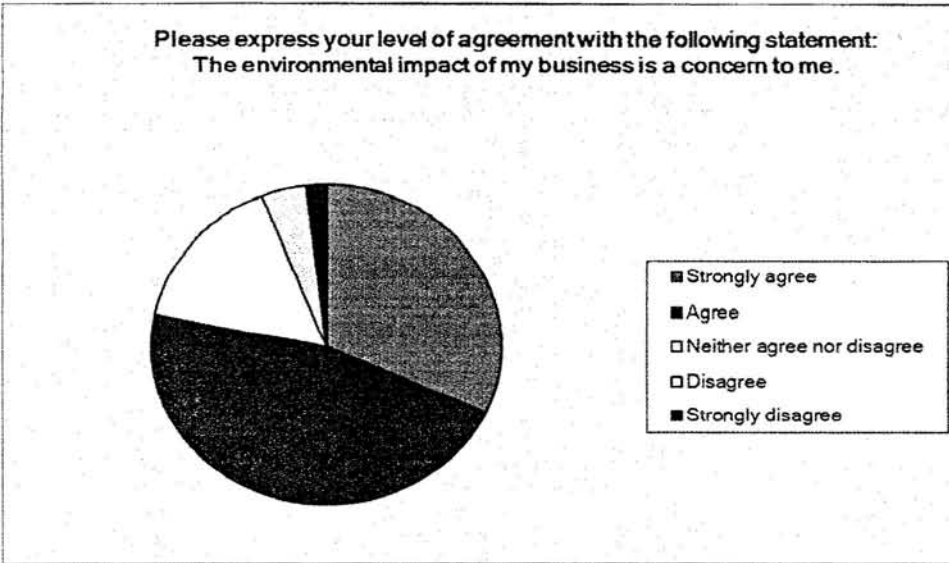


What are grower attitudes and actions toward sustainability?

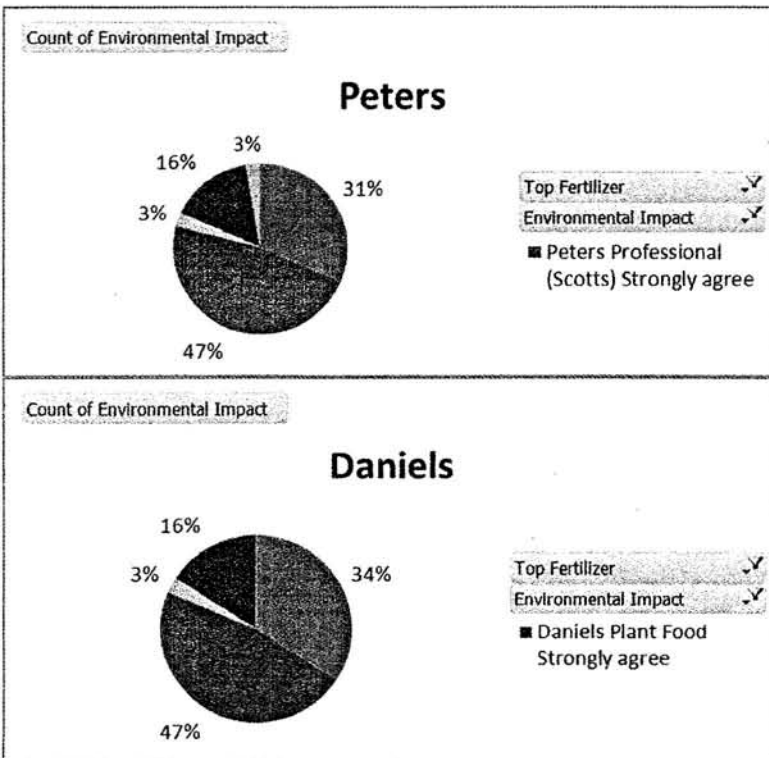
Greenhouse growers indicate concern about their impact on the environment as indicated by the following survey question:

Please express your level of agreement with the following statement: The environmental impact of my business is a concern to me.

Seventy-eight percent "agreed" or "strongly agreed" with the statement, while 16% were neutral, and only 6% "disagreed" or "strongly disagreed."



Interestingly, the responses related to sustainable attitudes among primary Peters users and primary Daniels users was nearly identical, which indicates that Daniels users are no more or less concerned about the environment than users of the synthetic Peters products. While it will be important to promote the eco-oriented differences between Peters and Daniels, the Peters users should be equally receptive to the Daniels eco-friendly message.



When asked what measures they are taking to be more sustainable, here were their responses. Note that the number of responses, which exceeds the total number of respondents, indicates that growers are employing multiple sustainable practices.

Of the following practices, which are you currently implementing? (Please select ALL that apply. If you are not currently implementing any of these practices, leave this question blank.)

Answer Options	Response Percent	Response Count
Use of bio-controls to manage insects and diseases	46.7%	313
Management of water run-off/using less water	42.7%	286
Use of organic-based fertilizer	22.7%	152
Regular testing of water EC and/or analysis of soil or plant tissue fertility	39.6%	265
Recycling pots	83.0%	556
Using pots made from renewable resources	29.4%	197
Growing appropriate crops in cooler temperatures	72.1%	483
Switching to more organic growing media	23.1%	155
Use of renewable fuel to heat greenhouses	12.1%	81
Comments:		33
<i>answered question</i>		670
<i>skipped question</i>		19

The responses were encouraging with respect to revealing practices (trends) that favor Daniels. As was the case previously, respondents selected several options that are selling points for Daniels, specifically: “23% said they were being more sustainable by using organic-based fertilizers;” managing water run-off and conserving water resonated with 43%, and growing cold was the response of 72%.

Survey Methods

During the last week in November 2010 we deployed SurveyMonkey to conduct a customer survey designed to learn more about greenhouse fertilizer use, grower preferences and choice drivers. It’s important to note that the survey introduction identified Ball as the sender. From the Ball customer list for the U.S. and Canada we selected approximately 8500 grower and grower/retailers in the United States and Canada for whom we had email addresses. About two weeks later we sent a reminder to growers who had not yet responded, which boosted response by more than 150. Nearly 1800 emails were undeliverable. According to the self-qualification question 542 respondents considered themselves wholesale growers, grower/retailers and retailers; while about 130 classified themselves as “other.” In spite of the high number who chose the “other” business category due to the size of the sample (greater than 6000 deliverables), and the strong response, 11%, we believe the results have a high degree of reliability. When we closed the survey we had received 720 useable responses—a rate of about 11%. An incentive was offered to respondents. The incentive is an opportunity to be entered in a random drawing for three \$50 Visa gift cards.