

**A QUALITATIVE RESEARCH STUDY
TO DETERMINE CONSUMER ACCEPTANCE, ATTITUDES &
PERCEPTIONS REGARDING
“EDIBLE” LABELING ON PRODUCE**

Prepared for:

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OBJECTIVES AND METHODOLOGY

Durand Wayland commissioned Clark & Company to conduct qualitative research of consumer attitudes towards the labeling of (primarily) edible skin produce, but also include non-edible skin produce in a minor discussion to compare. Gather specific feedback on this new controlled light labeling process. The primary informational objectives of the research were:

- To determine consumer awareness, and then attitudes about the current sticker labeling found on fruit;
- To discuss the purpose of the sticker labels, as well as the positives and negatives associated with them by consumers;
- To discuss and to show the new edible labeling process on edible and non-edible skin produce; including obtaining consumer perceptions and likes/dislikes and most of all their acceptance.
- To explore consumer concerns and questions about the new edible labeling process; and
- To brainstorm and discuss possible consumer education and marketing programs, as well as suggest names for the edible labeling process.

The methodology for the research consisted of a total of eight (8) focus group session conducted between March 8-15, 2005 in Atlanta, Georgia; Chicago, Illinois; Los Angeles, California; and Philadelphia, Pennsylvania.

The sessions contained a total of eighty participants. Participants were screened for fruit intake, household income (\$30,000-plus) and age (25-54), as well as a mix of gender and ethnic backgrounds. A significant portion of the participants was married and most of these had children living at home. The group breakdown is as follows:

March 8, 2004, 6:00 PM	Philadelphia, Pennsylvania
March 8, 2004, 8:00 PM	Philadelphia, Pennsylvania
March 9, 2004, 6:00 PM	Chicago, Illinois
March 9, 2004, 8:00 PM	Chicago, Illinois
March 10, 2004, 6:00 PM	Atlanta, Georgia
March 10, 2004, 8:00 PM	Atlanta, Georgia
March 15, 2004, 6:00 PM	Los Angeles, California
March 15, 2004, 8:00 PM	Los Angeles, California

Importantly, all participants were active consumers of various hand-held, edible skin fruits, with apples being the most popular.

Important Note:

- ◆ **Unless otherwise described, the word “fruit” in this report refers to edible and non-edible skin produce. The edible skin produce labeled and presented to the Focus Groups were; apples, plums, nectarines, tomatoes. The non-edible skin produce were; kiwi, avocados, limes.**

Choosing Fruit

Pre-Bagged vs. Individual Fruit

Almost all participants preferred individual fruit to pre-bagged fruit, and most of them were aware that pre-bagged fruit is not sticker labeled.

- Most stated they did not like the fact that they could not inspect each piece of fruit when buying the pre-bagged fruit, and more often than not, got the fruit home and were disappointed with the quality, the amount of bruising, etc.
- All participants were also aware that the pre-bagged fruit tends to contain smaller pieces.
- Those participants who preferred to buy pre-bagged fruit named the smaller size and price as their main reasons. Some participants also preferred the pre-bagged fruit when baking or juicing. Some verbatim comments include:

I like to be able to look at each one. Feel it, take a look and see if it's bruised. Whereas with the bag, they've all been kind of tossed in there.

It may be a little cheaper, but you actually do get what you pay for. I've noticed when I buy the bag ones I see little, what could potentially have been worm spots, or a lot of bruising in them. You have to cut off half the apple, and you get one little tiny piece that looks OK. Rather than seeing what you're getting when you're buying it.

You don't know what you're getting. You have nine or ten apples in a bag, they look good and all of the sudden you get them home and you're like, "I didn't see that bruise! I didn't see that indent! I didn't see the browning." So you don't know what you get.

If you're baking a pie, too, or something like that, where you can use a bunch of apples and they don't have to be perfect, or something like that, I would buy a bag.

They're smaller and I'd rather take two or three little ones in my lunch than one of these premium apples.

I like the bag. I think fewer hands get on it. Because even if it's out in the grocery store, you get to pick over it.

STICKER LABELING

All participant groups brought up the sticker labels found on fruit on their own.

- All but three groups brought up the sticker labels found on fruit when discussing what they disliked about eating fruit, and the others mentioned it shortly after (while discussing the process of choosing and eating fruit.)
- Participants almost unanimously found the stickers to be an irritation and an aggravation.

What is the Purpose of the Sticker Labels?

By far, the most frequently used phrase to describe the labels currently found on fruit is “Stickers.”

Awareness of the purpose of the sticker labels was high, with most participants stating it was to help identify and price the fruit.

- A number of participants also discussed that the labels indicate where the fruit was grown, either by listing the country or the growers’ association name. There was some confusion as to whether labels on edible skin fruit provided country of origin. Some participants indicated they had seen country of origin on bananas, which influenced them to think that stickers on edible skin fruit have country of origin on the label.
- In three of the eight focus groups, one participant stated he/she thought the stickers were used to help track fruit.
- While only one participant thought the label might indicate freshness, a few others expressed that they would like the label to include that information, such as the date the fruit was picked. The following breakdown includes representative responses and supporting verbatim comments:

- | | |
|--------------------------------------|--|
| ◆ Identify type of fruit (11) | ◆ Marketing / Advertising (3) |
| ◆ Country / state of origin (11) | ◆ Inspection indicator (2) |
| ◆ Price (8) | ◆ Pick of the crop / Endorsement of grower (2) |
| ◆ Help cashier (6) | ◆ Brand / grower (2) |
| ◆ Size (3) | ◆ Grade |
| ◆ Tracking device / Batch number (3) | ◆ Freshness |

I don't recall them being on the fruit as prevalent as they were before they had the scare with the grapes that time, the cyanide. So I think they're some kind of tracking device in some way.

For us personally? Nothing. Other than they can identify how much they have to pay for them. Other than the fact that they know how much to charge me. I never look at the sticker. I look at what the bin says they are.

It gives you the thought that somebody put their name on it. It was worth putting their name on, so it's a good product.... Someone is standing behind this product.

How Do You Remove the Sticker Labels?

As mentioned above, most of the participants felt the sticker labels found on fruit were, at minimum, an annoyance, and most felt they were difficult to remove. The “softer” fruits such as plums and peaches are viewed as especially difficult for sticker removal.

The two most prevalent complaints when discussing the removed of the stickers were:

- the tendency for the stickers to remove part of the fruit’s skin
- the glue residue that sometimes remains on the fruit after removing the stickers.

When asked to discuss the ways in which they remove the sticker labels, the following answers were given:

- | | |
|---|-------------------------------|
| ◆ Fingers / fingernail (8) | ◆ Fruit / vegetable spray (2) |
| ◆ Knife / Cut it off (6) | ◆ Run it under hot water (2) |
| ◆ Bite it off (4) | ◆ Soap and water (2) |
| ◆ Rub / sponge it off while washing (3) | ◆ Food peeler (2) |

I try to pick the ones (in the grocery) that don’t have the stickers on them.

Last resort, bite it off. You get aggravated with it and you just.... My kids do that and we call it the “bite-and-spit technique”.

What Do You Dislike About the Sticker Labels?

The majority of the participants disliked the sticker labels, citing the difficulty of removal and the fact that the stickers tend to end up in various places, including on their bodies, the floor, and windows.

- Participants also felt that the sticker labels just seemed an unnatural and processed addition to the most natural of foods.
- Other frequent responses:
 - the residue that is sometimes left by the stickers after it is removed
 - the sticker labels are aesthetically displeasing
 - the frustration of the stickers removing some of the fruit’s skin when removed.

- Responses and some verbatim comments are as follows:

- ◆ Stickers end up all over the place (i.e. on the floor; stuck to you) (13)
- ◆ Hard to remove / Process of removing (12)
- ◆ Seems unnatural / Necessitates processing (12)
- ◆ Leave a residue (9)
- ◆ Unattractive / Eyesore (9)
- ◆ Rips fruit’s skin when removed / Have to cut to remove (8)
- ◆ Forget to remove / Accidentally eat it (7)
- ◆ Disposal of sticker / Littering (7)

- ◆ Not childproof / Children need help with or don't like stickers (7)
- ◆ Fall off / Missing labels cause check-out problems (7)
- ◆ The adhesive is unhealthy / toxic (6)
- ◆ Switch tags / Fraud (5)
- ◆ Fingernails gouge / bruise fruit (4)
- ◆ Non-edible ink / Inks spreads to fruit (4)
- ◆ Choke (3)
- ◆ May raise cost of apples (3)
- ◆ Bacteria / Germs (3)
- ◆ Not informative / Print is too small (3)
- ◆ Could dirty / contaminate apple (3)
- ◆ Stuck in garbage disposal
- ◆ Hide bruises

It takes away from the fresh-picked idea of it. Maybe they had to put it on a conveyer belt for someone to be able to do this.

It's less fresh. It takes all this time. We have no idea how much time it would take the apple, from being picked to go through all the machines, the processing, the stamping, the waxing, getting to the actual supermarkets to sell. It could be three weeks by now, and we don't know.

I don't like to have to walk over to the trashcan, if my trashcan's not near the sink. I have to walk all the way to the pantry just to throw away the sticker. Not that I'm lazy.

My kids like to put them on their faces. I have a 3 ½ year old and two year old, and I find them all over the house.

Mislabeled, wrong label or no label at all could cost you if the cashier doesn't know what fruit is what. They're charging you for something that you didn't buy.

My children, when they go to grab an apple, they're always like, "Here Mommy." So I have to stop whatever I'm doing just to get that sticker off. Sometimes it's an annoyance.

I never know what to do with the sticker. I'm usually washing it at the sink, and I'm going "Uhh." And maybe there'll be a can there and I'll shove it on the top of the can. I don't want to waste a trip.

This is edible food. Why do they have to have a non-edible label on there? It's not a package; it's a skin that you eat, so it shouldn't be on there.

Sometimes you have to cut it off and waste part of your apple.

Something that is all natural that has something un-natural put on it, doesn't this defeat the purpose.

The glue might be a/or is a health concern.

EDIBLE LABELING

Initial Impressions of Edible Labeling

Before discussing edible labeling, participants read a concept description about the currently used “glue-on stickers.”

Participants then viewed a concept description of “edible label” fruit; then, samples of the edible label fruit were shown to participants. (A short time later, various edible skin fruit and some non-edible skin fruit displaying the process were handed out to participants.)

The phrase “laser coding” was not used in the concept description, but there was a brief reference to “laser.” (“This safe ‘controlled light’ process uses the same principle as laser surgery, but with only a fraction of the energy”.)

- Almost all participants were able to explore positive aspects of the new process when asked. Some general verbatim comments include:

I think if given a choice, there’s really no contest. Anybody would like to be rid of the stickers because they’re annoying and the danger of having them.

The glue and that somebody could possibly choke on the sticker.

This (the edible label) is a definite benefit.

I think it’s great.

I can’t imagine why anyone would even question which is better...it’s the laser!

It’s a good idea.

I think it looks cool. I just think that it’s neat. It’s modern, it’s neat.

It makes sense that it is natural; all you’re doing is removing the color!

It’s nice that there is technology finally here to eliminate the sticker label.

It looks beautiful I think.

In ten years nobody’s even going to think about it. If it’s not on there people are going to freak out because, “There’s no stamp on my fruit!”

I might be naive, but I’m thinking that if it’s there, it’s in the supermarket, it’s a name that we’re familiar with, I’m going to trust it. I’m going to wash it like I normally would and eat it. They won’t be selling it in the supermarket if it was going to harm me, I would eat it. So I’m thinking it’s not that big of a deal.

When this ever does come out, I'll probably peel it off just to see what the apple looks like underneath it, the first time. But then after that [it would be fine].

I'll be skeptical about eating this until I'm properly educated on it.

You're going to need to educate people what it is. Just because they don't know the process that it took to get it there.

Concerns about Edible Labeling

As mentioned above, participants had a number of questions and/or concerns about the new edible labeling process. The following breakdown includes representative responses and verbatim comments:

◆ Advertising on fruit

It has potential to get carried away, since you're saying it can say put anything they want. I envision a great big logo happening on here, because somebody's advertising.

They might think it's irradiated. If you say laser, they're going to connect it with some kind of radiation – so say it is light just like it is.

This process seems like it's going to do a lot of advertisement.... They're going to write all over the apple.

I want to know how much this would add to the price of them per pound, or per lime?

The smaller grower gets knocked out of the box because he can't afford the technology to put his print on the fruit.

The Type face / Font

(Note, we were unaware that the font size or case used to label the produce would be part of the evaluation. After being informed by the mediator that the type set was part of his evaluation, he requested different type sets to show the remaining focus groups. The new type sets resolved the issues of the initial font appearance. Unfortunately, it wasn't until after the first six focus groups we were informed that the type set was being evaluated.)

While some participants felt the typeface was clear and easy to read, other participants suggested a different font like not capitalizing all the letters and use two different size fonts. This would make the label warmer and more inviting.

It's nice and clear. Easy to read.

Generic very neutral.

Maybe you can put some fun in the labeling. Like a smiley face!

Names for the Edible Labeling Process

Almost unanimously, participants agreed that the “laser” had negative connotations, and should not be used when naming or describing this new labeling process.

[Laser] sounds, like you said surgery. Invasive.

When you say something is “laser treated” I’m afraid of it.

I don’t know if I like that word associated with my food. I think of it as removing moles, tattoos.

Many participants favored “edible label” as the name for this process, as well as the incorporation of the word “light.” Other names / ideas that were suggested include:

- ◆ Edible label / Edible stamp
- ◆ Light labeling / Light touch labeling (10)
- ◆ Safe labeling / Safety mark (3)
- ◆ Healthy labeling (3)
- ◆ Laser label (3)
- ◆ Natural labeling / All natural labeling (7)
- ◆ Non-ink (3)
- ◆ Non-chemical label (2)
- ◆ Organic labeling (2)
- ◆ No touch (2)
- ◆ Sunshine signature
- ◆ Lighten-Up
- ◆ Soft light label
- ◆ Edible ID
- ◆ Fruit labels
- ◆ Fruit wrappers
- ◆ Tag-less
- ◆ Stamp of approval
- ◆ Pulse labeling
- ◆ Homegrown labeling
- ◆ Wholesome labeling
- ◆ Photogenic
- ◆ Non-toxic
- ◆ Environmentally safe
- ◆ Kid-safe / Kid-friendly
- ◆ Fruit-friendly
- ◆ Non-invasive
- ◆ Bacteria free labeling
- ◆ Nature’s packaging
- ◆ Edible tagging
- ◆ Light kiss imprint
- ◆ Sticker-less ID
- ◆ Sun-kissed
- ◆ Light screened
- ◆ Fruit tattoos (2)
- ◆ Light embossing
- ◆ Natural light engraving

Most Compelling New Knowledge

Participants were asked to name the one most compelling piece of information they were going to take away from the evening and the discussion. The most mentioned answer was the presence/potential presence of bacteria in the old process, coupled with the elimination of bacteria in the new process because it is a non-contact process.

Participants were also impressed and very glad to know that the stickers were finally going to be done away with. The following breakdown includes representative responses and verbatim comments:

- ◆ Elimination of bacteria (9)
- ◆ Getting rid of stickers (8)
- ◆ New labels / Light labels / Laser labels (7)
- ◆ No more Glue (5)
- ◆ Using light is All natural (5)
- ◆ Making healthy food healthy (4)
- ◆ Safe / Not harmful (4)
- ◆ Children can be hurt by stickers (3)
- ◆ The interest in public opinion (2)
- ◆ Environmentally friendly / Energy efficient (2)
- ◆ Messy chemicals used to clean machines with stickers on it (2)
- ◆ It's an Edible label
- ◆ The need to trace even our fruit
- ◆ Mark the labels without the labels coming off
- ◆ Marking just the skin of the fruit
- ◆ Never knew how annoying the stickers were
- ◆ No Need to scrub my fruit better
- ◆ Finally Technology is catching up
- ◆ Controlled light process
- ◆ Lasers can be healthy
- ◆ The laser labels without using consumables

That we've gotten to the point that we literally have to trace even our fruit. It's actually a good thing, but it's an unfortunate thing.

That somebody's come up with an idea to get rid of these annoying stickers. It's a good thing to do.

Mostly, I guess making healthy food healthy. Because I didn't, I'd never thought about the glue and the process of keeping this healthy.

I was struck by the gunky business of cleaning up the machines so much. That I wouldn't have associated with the process of fruit.

I never thought of all the risks before. I never sat there and thought, "Oh, there's glue on my apple." I just thought it was annoying.

There's a new natural light labeling system that's supposed to be much better for you. There's no glue and less chance of bacteria.

CONSUMER EDUCATION & MARKETING

Most participants felt that a major consumer education and marketing campaign would be needed to introduce the edible labeling process, including television and print coverage and advertisements, in-store displays. One participant suggested targeting cooking shows (i.e. Emeril) to garner exposure and add credibility. Another participant brought up the idea of introducing the fruit in school systems to educate children, who would then go home and explain it to their parents.

Keep it simple.

Why don't they market it as the edible label? The edible label. Because then it communicates that it is edible, that it's nothing to be scared of. That you can be able to eat it but it is a label.

Explain it to the kids. They could go home and say, "Mom, let's go to the grocery store."

You're going to have to come up with a way of convincing people that it's not going to hurt them if they eat it. Just because they don't know the process that it took to get it there.

I don't know the time that you might want to introduce it. I don't know, is that a factor? Here in the Northeast, I think fall would be a great time to introduce it because that's when people really get in to apples. That's the prime time for apple consumption. They're at their best, especially locally around here. People think about apples.

Every cable station has a doctor that you're able to call in and ask questions and talks about these things. Every single cable station has them, and every single one of those should be doing some sort of presentation and talking about the new process and how safe it is.

If it's for a news spot, then I think the local guy that usually does funky kind of spots, should be the guy saying, "This is really a cool thing." Seeing this person everyday, it's almost like a relationship with this person you see everyday.

Partner with Brands / Growers' Associations

Almost all participants felt that the presence of a trusted brand name or growers' association would help consumers accept the new edible label process by adding credibility and familiarity. A few participants felt that the inclusion of a brand or association would create too much type on the fruit, but the other participants felt it was appropriate and acceptable. [The Washington State Growers' Association](#).

I think it would make a difference.

If Sunkist is going to use it, to me it gives credibility to safeness, because they're such a huge company. If Sunkist is going to say that it's OK, then I'll try it.

Washington state apples, they always talk about their freshness and their goodness and their wholesomeness. So even, like you were saying, you don't really associate the apple with Del Monte or Dole or one of the big fruit names. So if it, I think it would give some reassurance if it said Washington state apple.

I think if you put a name on it, some kind of name on it. Because I like Sunkist. I like Sunkist, I even like the lemons..

But I think you can have too much writing on your fruit.

I might be naive, but I'm thinking that if it's there, it's in the supermarket, it's a name that we're familiar with, I'm going to trust it. I'm going to wash it like I normally would and eat it. They won't be selling it in the supermarket if it was going to kill me, if I couldn't eat it. So I'm thinking it's not that big of a deal.

There's certain guidelines for pesticides in this country, so if I knew it was from Washington State, as opposed to no markings at all, I would go for that.

It's a good association.

I really still like the idea of not doing too much text, and if it's Sunkist, we know the Sunkist label and have it done like that.

Just like any other product, you're going to go with the product that you're used to hearing of or knowing.

Television Commercial

Asking participants to describe a television commercial that effectively communicates the process helps to further reveal their apprehensions and the benefits they see. Furthermore, the solutions they offer help to identify barriers to acceptance, both tangible and psychological.

Participants were enthusiastic about the idea of a television commercial to introduce the new edible labeling process. Some ideas that emerged:

- Highlight the safety and natural-ness of the process by including real fruit growers and children as spokespersons
- Showcase the soft light-powered process by incorporating sunshine in the advertisements.
- Show the actual edible labeling process in the commercial, as well as possible showing a comparison of the old process with this new, cleaner process.
- Contrast the benefits of the edible label process with the drawbacks of the sticker labels, but be careful not to be too negative.
- All participants felt it was critical to show someone taking a bite of the labeled part of the fruit in the commercial.

Some verbatim comments include:

I want the grower on the commercial saying that this product, this labeling, is edible.... Because the grower is where the produce comes from.... You should have the grower on the commercial talking about it. He's doing this, pushing it, going to make it work.

I'd use sunshine. Show the fruit growing on trees, show the sunshine on it, and as the sun is passing, the label becomes apparent, and it's healthy as sunshine or something. Reinforce the idea that it's not mechanical or processed.

I think I would the analogy of the tree in the beginning to appeal to the environmentalists, and then change it around to say, "OK, we need the tree to grow the fruit, but we don't need it to label the fruit."

You've got clouds on a rainy day and they open up, and all of the sudden the light comes through and beams down on the apple. Wouldn't that be cool?

A hundred and ten year old woman who's still alive, eating an apple.

You have Adam and Eve eating the apple, eating the label.

The light is the first thing that grows the seed, and the light is the last thing that hits it. It's all light. Seedling grows, the tree grows, it all needs sunlight. They are a form of light. And then it's picked, the last thing it sees is light.

By the sun. Make it a friendly beam of light that kisses the skin.

The assembly line with the old, with the stickers, the glue, something like that. And show the new fruit, where there's no glue, no assembly line.

It would be easy to make fun of the glue-on process. Just have a picture of a guy eating an apple with half a sticker stuck on his lip.

Show the machine actually putting the label on there, and "Ooh! The new light touch method," or whatever it's called. And actually show the people what the machine looks like and how it's actually doing it, not touching. You can say it's not being touched, but in my mind we're not going to believe that until we actually see the machine do it.

Just all the chemicals that you have to use to clean the machines, and how harsh they are and all that. And then make it more like she was saying, more friendly and light. So you sort of have the contrast.

Some additional spokespersons that were suggested are:

- ◆ Snow White
- ◆ The CEO of Washington Apple Commission
- ◆ Johnny Appleseed
- ◆ George Washington
- ◆ Tom Hanks
- ◆ The Incredible Hulk
- ◆ Paul Newman
- ◆ Mothers
- ◆ Children
- ◆ Bill Cosby

- ◆ Growers
- ◆ Government / FDA representative
- ◆ Athletes
- ◆ Women's / Girls' soccer teams
- ◆ Tiger Woods
- ◆ Mean Joe Green
- ◆ Teacher
- ◆ Doctor
- ◆ The Green Grocer
- ◆ Kelly Ripa
- ◆ Scientist
- ◆ Surgeon General
- ◆ Chef / Emeril / Host of "Good Eats"
- ◆ Sir Isaac Newton
- ◆ Steve Jobs
- ◆ Supermodels

... Have a teacher's desk with all these sticky labels on it.

Supermodels. Because milk did real well with... Maybe not celebrities, but someone who looks really healthy, has great skin and natural. That might give credibility.

Spokesperson Associated with Health, Trust, Product Relevance, "Natural-ness"

- Note how the spokespersons suggested by fruit-eating consumers are largely associated with one or more of the following attributes:
 - Health / Athleticism – Tiger Woods, Athletes
 - Trust / Trustworthiness – Mothers, Bill Cosby, Teachers, Children
 - Product Relevance – Growers, CEO of Washington State Apple Commission, Sir Isaac Newton, Johnny Appleseed
 - Natural-ness – Johnny Appleseed, Growers,

In-Store Sign

Most participants felt that an in-store sign would be needed to help consumers navigate the changes in the labeling process. By asking them the key points that should go on the sign, it tells us what is important to them, and what barriers need to be overcome to stimulate acceptance.

Most also felt that using a variation of the Benefit Statements they were asked to evaluate would be very effective. Again, participants felt the focus should be on the benefits of the new edible labeling process, rather than on the problems with the sticker labels.

I think they would want to put up these Benefit Statements. Telling them why they're changing the old ways.

I'm saying, if you put a sign up saying that these are just marking the outside, it is totally safe, and even safer than the old way of doing the stickers, that people would probably go, "Wow, this is great!"

So I'm thinking, "Wow, this is going to be some technological advancement that high powered stuff is going into my fruit, and what was the problem with the old stuff." They just have to market that, "What we've been doing the last four years was the stickers have been bad for you and now this is better." Explain the process, the whole change. Without scaring people that what they've done for the last thirty to forty years on their fruit.

Eat it, don't peel it.

Show the before and after.

Just cutting this off to show that there's no ill effect under the skin. That the skin's not burned or whatever, just so they can see.

"A new environmentally friendly way of labeling fruit!" And then we have to go, "Well, what is that?" And it makes us not only want to go into that section and ask the produce broker, look at the fruit, and then suddenly, we might have three or more kinds of fruit in our basket than we ever thought.

Give them reasons why you got rid of the label. Because before I came tonight, I never thought about the bacteria on the fruit.

The slogan could be "Let there be light."

Show how it's put on there. Use a graphic, a four-step process, what exactly happens to it.

Organic labeling. Capture the process in a couple of words.

Other statements / phrases participants felt could be included were:

- ◆ See the Light
- ◆ All natural
- ◆ Breeze through the checkout line
- ◆ Won't harbor bacteria
- ◆ No adhesive
- ◆ No more stickers
- ◆ Chemically safe

Non-Edible and Edible Skin: Dual or Individual Rollout?

There was no clear consensus among participants regarding whether the new laser labeling process should be introduced on hard skin and edible skin fruits at the same time, or on hard skin fruits first.. Some participants felt that introducing the process on hard skin fruit (an easier "sell") would help consumers get used to the process more easily. Others felt consumers would wonder why the process was not also on edible skin fruit and think there might be a problem in that area.

Some of the verbatim comments are as follows:

A fruit that has a thick skin that gets removed anyway, they would be more receptive anyway.

Hard skin first. Get us used to it, get the benefits of the stamp versus the label, get that out there. And then once we understand the technology, then start on the [edible skin fruit].

I'd wonder why not. If I'm seeing it on one and not the other, what's the difference? Is there some process that you can't put it on the one?

If you had it on the hard skin first, then people say, "Well, why isn't it on the soft skin. Is there something dangerous about it?"

I don't know if people are going to notice the sequence of what comes out first. I think that to your point, get people used to seeing it. Get used to seeing it. I wouldn't remember what fruit I bought it on. If I bought an orange first, and then three months later, I saw it on an apple, I don't think I go, "Oh, they put it on the orange first. I wonder why they did that?" I think I would be aware that I'd seen it somewhere before, I don't remember if I saw it on a hard or soft, edible or not. I think awareness.

When you put in on the exterior of the non-edible skin...you're going to make the assumption that you cannot eat the marking.

BENEFIT STATEMENTS

Early in the focus group sessions, the participants evaluated the edible fruit labeling concept by rating six Benefit Statements as follows: (Also, see appendix.)

"A number one ranking means this statement represents the most important benefit to you about this process. Put a 1 in that box. A number two ranking means this statement the next most important benefit to you. Put a 2 in that box. - Then, put an "L" in the box containing the least important benefit."

Tabulations by focus group for each of the six Benefit Statements are below.

- The "no-touch" application was by far the most popular Benefit Statement.
- However, later when asked to compare the "no-touch" application benefit with just the no glue benefit, participants were just about tied in their opinions of which was more relevant and important.
- Verbatim comments are also included. The "1, 2, and L" indicate the number of 1st, 2nd, and least-liked votes for each Benefit Statement – by focus group and overall.

The Benefit Statements are discussed in order of receptivity

The “no-touch” application reduces the chance for contamination and growth of potential bacteria.

	ATL 1	ATL 2	CHI 1	CHI 2	LA 1	LA 2	PHL 1	PHL 2	TOTAL
1	5	3	1	2	6	3	7	2	29
2	0	3	6	2	1	3	1	2	18
L	1	0	1	0	0	0	0	0	2

- Almost four of every ten participants rated this message as their first choice.
- Six of every ten participants rated this Statement as either their #1 or #2 choice.
- This message was not only viewed positively by the greatest number of participants but also received almost no “least-liked” votes.

I just had no idea about the contamination of the sticker being on there.

It was the words “contamination” and “growth of potential bacteria” in the same sentence that got me.

It’s the most personal. It’s the one that affects you the most.

“No touch” says it all.

If I’m trying to eat fruit to be more healthy, the last thing I want is a bacterial infection.

...I think bacteria’s important. It can spread and contaminate any other food it might touch.

There is no risk of a child accidentally swallowing, and potentially choking on, the glue-on label.

	ATL 1	ATL 2	CHI 1	CHI 2	LA 1	LA 2	PHL 1	PHL 2	TOTAL
1	3	1	4	3	1	2	2	4	20
2	2	2	0	2	2	1	0	3	12
L	1	2	0	1	0	4	0	0	8

- 2.5 of every 10 participants rated this as their 1st choice.

Out of everything that’s there I saw it as the most real threat or possibility. Young kids eat a tremendous amount of fruit. If you’re fixing lunch and doing things and somebody grabs a hold of it, starts eating it....

I really can’t see [a child choking]. Because the peeling is going to be, it’s going to be chewed up into the peeling.

Well anything that has to do with a child. You always want the benefit of the doubt to just kind of keep the hazard away.

No opportunity for glue to stay on the fruit. You can eat the whole fruit without worry of glue residue.

- Four in ten participants rated this message as either their 1st or 2nd choice.
- Note how this message had a large number of 1st and 2nd place votes, but also a comparatively large number of “least-liked” votes. Some participants felt the glue was not a “big deal” – you can just wash it off.

	ATL 1	ATL 2	CHI 1	CHI 2	LA 1	LA 2	PHL 1	PHL 2	TOTAL
1	2	3	2	3	1	3	1	1	16
2	2	0	3	2	3	1	4	1	16
L	1	2	1	0	3	0	3	3	13

It's kind of ironic. You're eating a fresh fruit for health, and you're eating chemicals. That's kind of the irony of using, it kind of defeats the purpose.

It's natural product and then you're taking glue and putting a sticker on there. And to me it's just not appealing.

I just felt that went hand in hand with the contamination and bacteria. If there's no glue, there's no opportunity for bacteria either, so I just felt those two kind of went hand in hand.

This “environmentally friendly” product saves enormous energy and saves our forests.

	ATL 1	ATL 2	CHI 1	CHI 2	LA 1	LA 2	PHL 1	PHL 2	TOTAL
1	0	1	1	0	2	1	0	3	8
2	4	1	0	0	2	4	1	0	12
L	0	0	0	3	2	0	1	2	8

- This “environmentally friendly” message was generally received better by focus group participants with the greater education levels. The Chicago sessions happened to have more “blue collar” participants than did the other markets. (Note the low response to the message in Chicago.)

Just to protect the environment. To me, honestly, if you eat a lot of fruits and vegetables and things like that, you're more conscious about your environment in general.

I just figured with all the trees we're using, all the paper, these little labels aren't going to have that big of an effect.

Saving the energy, and more environmentally friendly is one less process they have to go through, labor intensive, and adding material that doesn't have to be there.

I'm always looking at the big picture. We have to start somewhere, and just with little things of paper. People don't think it will really make a difference, but it does. And it's not until you go out to states like Oregon where you see trees, and big paper producing country, or cities, you realize what they're taking down.

This “environmentally friendly” product uses no harsh messy chemicals to clean up machines.

	ATL 1	ATL 2	CHI 1	CHI 2	LA 1	LA 2	PHL 1	PHL 2	TOTAL
1	0	0	0	1	0	1	0	0	2
2	1	2	0	1	2	1	1	1	9
L	4	3	5	2	1	2	3	5	25

Food and chemicals don't mix, in my opinion. The farther they're separate, the better I am.

...All this stuff goes into our rivers, and look at the Chattahoochee, look at this just locally here, let alone nationwide or all over. All the chemicals that we're creating and using that don't need to be used anymore.

I think preventing more chemical waste is something everybody should be concerned about.

CONCLUSIONS AND RECOMMENDATIONS

Top of Mind Feedback Regarding Eating and Choosing Fruits

- ❖ Participants tended to prefer individual fruit to pre-bagged fruit, and all of them were aware that pre-bagged fruit is not sticker labeled.

Sticker Labeling

- ❖ Awareness of the current sticker labels found on fruit was high. Every participant group brought up the topic on its own. Additionally, participants almost unanimously stated that they find the stickers to be an annoyance. Likewise, participants had a high awareness of the purposes the sticker labels serve.
- ❖ The majority of the participants disliked the sticker labels, citing the difficulty of removal and the fact that the stickers tend to end up “all over the place.”

Participants also felt that the sticker labels just seemed an unnatural and processed addition to the most natural of foods. Finally, a number of participants mentioned the residue that is sometimes left by the stickers after it is removed, the fact that the sticker labels are aesthetically unpleasing, and the frustration of the stickers removing some of the fruit’s skin when removed.

Edible Labeling

While a few participants easily accepted the new edible labeling, most voiced questions and concerns about the process until they were informed or educated on what it was. Overall, the majority of participants voiced their acceptance and they see no reason why it wouldn’t be as long as the consumer was informed or educated. It is important to note that most of the participants felt it would be overwhelmingly accepted when the benefits of this new process is shown to the public.

- It is recommended that a different font be chosen for the edible labeling of fruit. The new font conveyed warmth and familiarity, but still be easy to read. Also, lower case script is suggested in lieu of “ALL CAPS.”
- It is also suggested that “some fun” be incorporated in the new edible labeling during the introductory period to up the “wow-factor” of the new process and to reassure consumers. This “fun” aspect also helps to counteract any concerns about “Big Brother” and “super-seriousness.” Pre-test (with consumers) edible Smiley faces or slogans (e.g. “An Apple A Day...”) as two possible suggested options.

However, the amount of writing on the fruit skin must also be limited so as not to overwhelm consumers. Additionally, any language or emblems reminiscent of advertising should be avoided.

- ❖ The Right “L” – Light, not Laser

Almost unanimously, participants agreed that the word “laser” had negative connotations, and should not be used when naming or describing this new labeling process. They felt that laser would be incorrectly associated. Participants were much more open to the phrase “edible labeling.” Other key buzzwords participants found favorable were “light,” “safe/safety,” and “all natural.”

- ❖ Light connotes an association with the sun, a most natural connection to fruits. “Natural light labeling” and other reassuring light-oriented phrases such as “safe, soft controlled lighting”, “low energy lighting”, etc. could be examined and further tested (Suggestion: Conduct a “light” brainstorming session using information from these sessions.)
 - It is recommended that the process be described as “edible labeling” or some variation thereof. The name should emphasize the safety of the process.
- ❖ Participants were asked to name the one most compelling piece of information they were going to take away from the evening and the discussion. The most mentioned answer was the presence of bacteria in the old process/the elimination of bacteria in the new process. Participants were also impressed and glad to know that the stickers were finally going to be done away with.

Consumer Education & Marketing

- ❖ Most participants felt that a simple, consumer education and marketing campaign would be needed to introduce the edible labeling process, which may include television, print coverage and advertisements, in-store displays. Almost all participants felt that the presence of a trusted brand name or growers’ association would help consumers accept the new edible label process by adding credibility and familiarity.
 - It is recommended that partnerships and endorsements be sought by all major grower associations (i.e. Washington State Growers’ Association); fruit production and production/distribution companies (i.e. Del Monte, Sunkist). Sunkist is a powerful brand association.
 - Consider creating an educational program for produce managers and supermarket employees explaining the new labeling process, and highlighting some of the questions they are likely to be asked when fruit with the new labels enters the stores.
- ❖ Participants were enthusiastic about the idea of a television commercial to introduce the new edible labeling process. Most felt it would be best to highlight the safety and natural-ness of the process, as well as actually showing the edible labeling process in the commercial. Finally, participants felt it was important to contrast the benefits of the edible label process with the drawbacks of the sticker labels, but to be careful not to be too negative.
 - Any commercial or video news release should show someone taking a bite of the labeled part of a piece of fruit to highlight the fact that the edible labeling process is safe and edible.
 - Include real fruit growers in commercials/VNRs to add credibility and accountability to the new edible labeling process. Also use children in advertisements/VNRs to showcase the safety of the process to both parents and kids.
 - Consider incorporating the natural light of the sun/ natural light labeling as a marketing tool in commercials/VNRs. As discussed above, light is a very relevant “connecting” image.
- ❖ Most participants felt that an in-store sign would be needed to help consumers navigate the changes in the labeling process. Most also felt that using a variation of the Benefit Statements they were

asked to evaluate would be very effective. Again, participants felt the focus should be on the benefits of the new edible labeling process, rather than on the problems with the sticker labels..

- Highlight the “no touch” application process, the reduction in the risk of bacteria, and the lack of adhesive/glue, as these were the most popular of the six Benefit Statements presented to participants.
- ❖ There was no clear consensus among participants regarding whether the new laser labeling process should be introduced on non-edible skin and edible skin produce at the same time, or on just non-edible skin produce first. However, Clark & Company recommends introducing them simultaneously, as consumers may wonder if the process is “not right yet” for edible skin fruit. Also, a simultaneous introduction will create more momentum.

APPENDIX**Handout**“Glue-On Labels”

Notice the apples with these stickers in front of you.

The stickers are actually adhesive due to a tiny amount of glue on them. You might call them “glue-on labels.” The glue is actually contained between the apple and the label.

These glue-on labels actually serve a useful purpose. First, these labels help consumers know exactly what they are buying. The stickers properly and specifically identify the fruit. For example, a consumer will know they are getting “Golden Delicious” rather than “Granny Smith”, or vice-versa. This also helps to prevent fraud. For example, cheap red apples cannot be put into a bin of more expensive Red Delicious apples. Secondly, these labels have a PLU number on them (product look-up number), which will tell the cashier the price of the fruit.

Concerns with the glue-on Labels

- Glue residue
- Possibility of child swallowing and choking (this has occurred)
- The label is placed on the fruit by a machine which touches the apple. This process, plus the glue, can harbor bacteria. The label actually covers potential bacteria and can cause the bacteria to grow.
- The stickers may fall off the fruit, so there is no identification. A fallen sticker might later adhere to another variety of the fruit, mislabeling it.
- The stickers contain non-edible dyes.
- The process of putting on the labels consumes significant energy, creates waste, and creates some potential hazards:
 - Chemicals are required to clean up after the machines are used to put on the stickers. These chemicals are used to dissolve glue and create a “chemical mess.”
 - Paper labels mean the cutting down of many trees.

HANDOUT

“Edible label” fruit: An alternative to “glue-on labels”

A new state-of-the-art technology is now available to overcome the drawbacks of “glue-on” labels and to provide more benefits.

The process uses no chemicals and consumes 1/50 the amount of energy as machines that apply stickers. No foreign source touches the fruit; this means that there is no opportunity for bacteria to develop and grow as a result of the “Glue-on” process.

This safe “controlled light” process uses the same principle as laser surgery, but with only a tiny fraction of the energy. Personnel of the FDA prefer this process because there is no contact and nothing applied. With nothing being applied it reduces the risk of contamination from an application of a foreign source.

The fruit is completely safe as a result of this “controlled light” process, which simply removes a small amount of color out of the skin, leaving it completely edible and free of glue.

An added benefit of this process relates to food safety and security. The coding allows officials to readily trace the origins of the fruit, right down to the place it was grown, on domestic and foreign soil. If there is any fruit that is tainted, it can be traced back from the numbers. This is not the case with “sticker” labels.

There is no reduction in the shelf life of the fruit.

The acknowledged benefits of this “edible label” are shown on the next page. Please turn read the directions.

(Your group moderator will show you an example of this “edible label” fruit.)