



## **Labeling Solutions for the New Manufacturing Paradigm**



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## OVERVIEW

# Product labeling innovations enable small manufacturers to improve label processing and packaging operations in a shifting marketplace

There has never been a better time to be a small manufacturer.

Advances in print technology, changes in consumer behavior, and new forms of digital communication allow small manufacturers to meet the demand of both local and global markets.

By creating and distributing products that support the increased demand for craft food and beverage and locally sourced products, small manufacturers have great potential for growth and success. But to realize it, today's new breed of manufacturers need resources that keep pace with their small economies

of scale and fast pace of operations. This responsiveness is especially critical in the area of label production.

In this report, we'll look at the business demands faced by small manufacturers and analyze how traditional label production has failed to keep pace with the market demand for this type of personalized products. We'll then look at new print technologies that enable small manufacturers to easily take control of their label production, and the results these solutions have on operational, financial and marketing efficiencies.

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**Part 1:** The opportunity for small manufacturers

**Part 2:** The power of personalization

**Part 3:** Small volumes, big label challenges

**Part 4:** The label production paradigm

**Part 5:** Putting the manufacturer in control

**Part 6:** How label printing systems with single-pass printheads improve operations

**Part 7:** Real world results

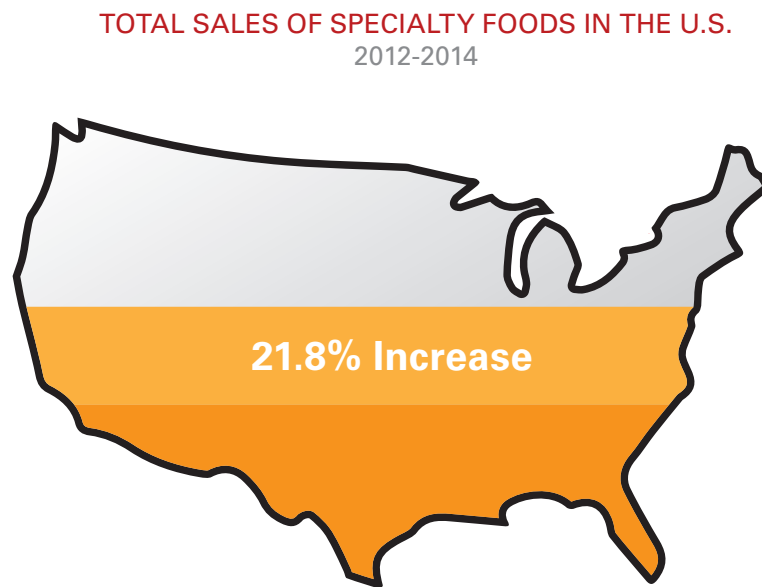
**Part 8:** The opportunity is yours



**PART 1: OPPORTUNITY FOR SMALL MANUFACTURERS**

Consumers today want products that are made from a simple list of fresh ingredients by suppliers who are part of their connected economy – whether that is in their local community or their digital world.

As a result, sales of products produced by small manufacturers have exploded in recent years. The “State of the Specialty Food Industry” report prepared by the Specialty Food Association noted that total sales of specialty foods in the U.S. grew 21.8 percent between 2012 and 2014.



*Source: Specialty Food Association*

Online sales have also contributed to the success of small manufacturers. Eighty-five percent of manufacturers sell via their own website and forty-nine percent use a third-party platform giving them the ability to reach both local and global markets with increasing ease.

This growth is also reflected in the volume of labels being produced for food products. Food is by far the largest labeling sector, as labels are now being produced for a broader range of primary and secondary food packaging.



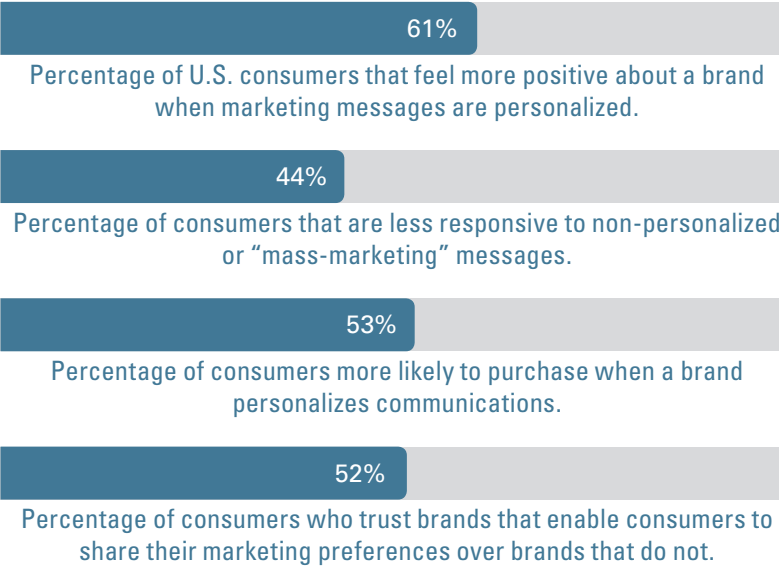
**PART 2: THE POWER OF PERSONALIZATION**

In the past, the manufacturing paradigm went like this: a large manufacturer produced big volumes of a monolithic product for distribution to as many people as possible. A one-size-fits-all mentality ruled.

Today, small and large manufacturers are increasingly finding opportunity in a more personalized world. Whether it is a big brand or a local manufacturer, products produced today include more personalization, regionalization and event-driven branding than ever before.

This type of branding creates a strong connection with the consumer. The product is no longer a generic product, but a personalized creation that “speaks” directly to the consumer and is part of their lifestyle. Research done by Responsys notes that sixty-one percent of U.S. consumers feel more positive about a brand when marketing messages are personalized.

**RESPONSYS RESEARCH ON PERSONALIZATION**



Source: Responsys study

So it is no surprise that the label has also become part of this personalization trend. For example, consumers today can enjoy a soft drink with their name on it. People going to a music festival can drink a craft beer created just for that event. Cookies baked by a local bakery are packaged and distributed

to commemorate a specific holiday. A local producer of small batch soaps prepares a line of soaps to support a local charity.

The manufacturer’s creativity – and their internal processes – are the only limit to what can be achieved with product personalization.



### PART 3: SMALL VOLUMES, BIG LABEL CHALLENGES

To succeed in this new paradigm, manufacturers need to think a new way. Their production process must now be more adaptable and able to accommodate the small dynamic runs, low inventory and flexible change processes that these types of personalized products require.

This is especially true with label production. Although these products are produced with a smaller economy of scale, the labels used for these products still include the same complexities larger manufacturers experience. No matter what the volume, the colors, logo, and images used in the label design, they must all be represented in a highly professional way.

#### The Clean Label

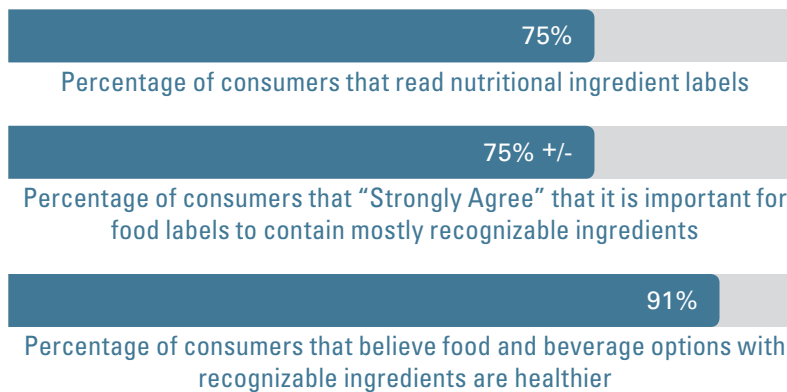
Research done by Innova Market Insights finds that consumers are increasingly trying to be informed about what they eat. As a result, they are paying more and more attention to the label of a product, looking for what the industry calls “clean labels” with limited, natural ingredients.

These clean labels play a critical role in establishing a connection with the consumer. Once consumers know what is in the product – and feel that companies are being transparent – they then experience a feeling of trust about the company.

This means that labels produced for products must support the story of the company’s brand, while providing required product details, such as: regulatory information, nutrition details, manufacturing date and batch number, allergen and other types of warnings.

And finally, any label produced for these products must be safe and do no harm to the food or product inside.

#### CLEAN LABEL RESEARCH



Source: Innova



## PART 4: THE LABEL PRODUCTION PARADIGM

To meet all these requirements, many small manufacturers go to a local label converter or printer to produce their labels. All too often, these third-party suppliers end up creating more challenges than they solve.

That's because the process of label production by an outside supplier can be time consuming and complex. The manufacturer provides the label supplier with the label design and the converter prepares a proof. The manufacturer then reviews the proof and makes any necessary changes.

All too often, in the time it took to make the proof, a change has happened to the product, and the label must be adjusted to reflect that change. A new proof is then created and must be checked for accuracy to ensure all changes have been incorporated and no other errors have occurred.

At this point, the manufacturer's need for the labels may have become urgent and require the order to be rushed. The converter can rush the job, but will charge a premium in order to expedite the order.

Multiply this process by the number of labels – and the number of changes per label – and you can see how it's easy for mistakes and delays to happen.

Moreover, because of the economies of print production, these label producers demand a minimum order quantity that is often much larger than these small manufacturers require. These label producers cannot accommodate

the inherent need for small run sizes that comes with the production of labels for customized and personalized products.

As a result, the manufacturer must tie-up their capital and their production schedules to purchase large volumes of monolithic labels for their products.

And, when there is a change to the product – nutrition, regulation, product changes – that requires an update to the label, the manufacturer is forced to incur the cost and waste of unused labels and start the expensive, time-consuming process all over again.

Timing is also a challenge. Small and medium sized manufacturers operate in a “just-in-time” environment. They need labels at exactly the time when there is demand for their products. Labels that get delivered before they are needed must be stored and managed; labels that come late can mean delays in production, shipping, and revenue.

Today's manufacturers need a label printing process as flexible and dynamic as their business. To achieve that, they need to make label production a part of their own manufacturing operation.



**PART 5: PUTTING THE MANUFACTURER IN CONTROL**

Advances in printing technology have transformed the label production paradigm.

Today, a new class of inkjet-powered solutions are giving manufacturers the control they need to produce full color, quality labels in a fast, efficient and affordable way. These solutions can easily be incorporated into the manufacturer’s process because they don’t require any printing expertise or the need to hire any staff.

This level of control – combined with inkjet’s unique ability to effectively produce short run jobs – has led to inkjet’s explosive growth. Packaging research firm Smithers Pira estimates that from 2014 through 2019, inkjet-powered printing solutions will grow by twenty-three percent.

**IN-HOUSE VS. OUTSOURCING OF LABEL PRINTING**

	<b>Outsourcing Labels</b>	<b>In-house label production with Afina L801 inkjet printer</b>
<b>Effort</b>	<ul style="list-style-type: none"> <li>• Purchase 1-color pre-printed label stock (up to 195 SKUs)</li> <li>• Thermal printing for variable data</li> <li>• Difficult to meet FDA/USDA labeling compliance with size and resolution</li> <li>• Printing took 8 hours per day</li> </ul>	<ul style="list-style-type: none"> <li>• Print on-demand full color</li> <li>• Minimal inventory management</li> <li>• FDA/USDA compliant labels with small fonts and graphics</li> <li>• 84% lower labor costs</li> <li>• Print 1–2 hours per day</li> </ul>
<b>Cost</b>	<b>\$.10 per label, 2”x 4”</b>	<b>\$.03 per label, 2”x 4”</b> <b>\$.04 per label, 2.5”x 6”</b>

<b>Daily savings for printing 20,000 labels</b>	<b>&gt;\$1,300 in material</b> <b>&gt;\$125 in labor</b>
<b>Total savings per day</b>	<b>&gt;\$1,425 = Payback in &lt;1 month</b>

At the heart of these solutions are single-pass inkjet printheads.

These single-pass inkjet printheads, such as those developed by Memjet, literally transform the label printing process – making it faster, easier, and more efficient for food and small consumer good manufacturers to economically produce color labels in-house.

Unlike thermal transfer, laser, or scanning inkjet technologies of the past, Memjet’s next generation printheads power solutions that offer a level of quality that matches or exceeds that of labels produced by a third-party supplier operating in the old paradigm, while printing significantly faster than these legacy technologies.





## PART 6: HOW LABEL PRINTING SYSTEMS WITH SINGLE-PASS PRINTHEADS IMPROVE OPERATIONS

The inks that are used in Memjet printheads mean manufacturers never have to choose between safety and quality. Memjet inks are water based, so they are environmentally friendly and don't require energy intensive drying or curing equipment.

Flexibility	Shorter turnaround & time to market, regulatory compliance, supply/demand matching.
Efficiency	Color improves business processes and reduces mistakes by highlighting critical information in color.
Change Management	Adapt to change in demand, business uncertainty, or changes in regulations quickly and cost-effectively.
Reduced Inventory and Waste	Printing only what is needed decreases cost of inventory management and waste.
High Impact	Highly attractive full color labels are more appealing to consumers, resulting in increased sales.
Production Flexibility	Allows manufacturers more production flexibility by producing labels when production schedules need them - not when an outside supplier can deliver them.

The inks that are used in Memjet printheads mean manufacturers never have to choose between safety and quality. Memjet inks are water based, so they are environmentally friendly and don't require energy intensive drying or curing equipment.

Most importantly, these inks are manufactured using Good Manufacturing Practices (GMP), are free of RoHS substances, and with appropriate label stock or packaging material can be safely used with food or other consumable products.

Best of all, these new inkjet solutions can seamlessly become part of the manufacturing process. That's because single-pass inkjet printheads output the ink with great speed – firing millions of drops of ink per second.

At roughly a foot per second the speed makes print-on-demand and small batch color label production a reality, and gives manufacturers greater flexibility and creativity in the type and quantity of labels they produce.



So whether it's a batch size of 1 or 1,000, this new breed of single-pass inkjet printing solutions can print quality labels each and every time. Using their own staff, manufacturers can easily produce personalized labels when their business demands them.



*By producing labels in-house, Kanani Foods was able to realize a 94% saving in their total label production costs.*

Inkjet labels can also create new business opportunities for the manufacturer by supporting the production of personalized labels for holidays, special events, sports teams, regional promotions, and seasonal opportunities.

No other technology can produce these results at the total cost of ownership that inkjet solutions enable.

### **CONTROL YOUR PACKAGING THE WAY YOU CONTROL YOUR LABELS**

There was a time when the goal of packaging was to safely hold the product inside. But not anymore. Today's packaging must act as a personalized communication channel between the brand and the consumer, playing a key role in getting and keeping satisfied customers.

Memjet's OEM partners like Xante provide single-pass wide format inkjet solutions that let printers and manufacturers succeed in this new printing paradigm, giving them the resources they need to easily produce highly personalized packaging and related materials at an affordable cost of ownership.

Today's inkjet technology is used in solutions that let you easily incorporate exterior packaging into your manufacturing process. Quantities are not dictated by an outside vendor, but can be based on what is happening at your facility. You can buy one corrugated box and customize it on-demand with the relevant product, SKU, and shipping information. Print one box or 1,000 boxes in a fast, professional way.

Best of all, personalized product, order, and customer information can be printed directly on the box. This means you can include personalized messages and images directly on your packaging that creates a connection with your customers – and keeps them doing business with you.

Memjet works with OEM partners to power these types of packaging solutions. You can learn more about inkjet-powered packaging solutions by visiting [memjet.com/xante](http://memjet.com/xante)



## PART 7: REAL WORLD RESULTS

Inkjet printheads are used in label printing solutions produced by a range of OEM partners. These solutions are available at a much lower total running cost than previous in-house solutions, and often require no special staff to operate them.

From desktop print and cut solutions, to roll-to-roll solutions to mini-presses that integrate simple die cutting and laminating features, these in-house labeling solutions can meet the complex range of demands that labels bring, while still giving the manufacturer complete, in-house control of the label production process.

Manufacturers can simply bring in the blank label stock of their choosing and print the labels as they need them using their existing staff.

Let's look at the impact these solutions have made for small manufacturers who have transformed their label production by making it part of their manufacturing process.

### Meeting Regulatory Requirements

One of the biggest challenges of label production comes from meeting all of the regulatory requirements, including required information on nutrition, ingredients, allergens, and product certifications such as organic or non-GMO, etc.

Previous label production methods required a large quantity of labels to be ordered – but when ingredients, regulations or products changed, the labels became obsolete, resulting in large amount of unused, wasted labels.

Bringing the production of labels in-house changes all that. Using an inkjet-powered solution means that manufacturers can quickly and easily accommodate any change to the label.

Glenoaks Food is an example of an operation that has taken control of their label production. The California based company produces a variety of beef jerky products that are marketed under different brand names. The USDA and the FDA regulate these products, so the company – and the labels – must always be in strict compliance.

As a result, Glenoaks Food prints labels for over 900 SKUs. To produce this wide range of labels on demand and ensure the labels are always in compliance, the company purchased the Memjet-powered Colordyne 1600-C.

John Fallon, President of Glenoaks Food, says, “With this Colordyne 1600-C, we know that when regulations change, our labels will always be in compliance. This is critical for us, because we avoid having to recall a product or throwing away thousands of dollars worth of label stock.”

In addition to compliance, Glenoaks has been able to speed up label production. Labels that used to take six weeks to order and receive can now be printed in-house in a day.

### The label as a marketing tool

The label tells a “story” about the product – it must be attractive and communicate a level of quality to make the product stand out from the competition when on a shelf or received via an online order.

Kanani Foods is an example of a company that needed to tell a better story with the labels on their products.



Located in Las Vegas, Nevada, Kanani Foods provides grab-and-go meals for casinos and golf courses in the area. The company knows the value of an attractive label – and the challenges that can come with a label that does not reflect a company’s brand.

Tim Cruz is the general manager at Kanani Foods. He says, “Every time we pitched a new account they would say your product tastes great - but your labels look hideous! We had been so focused on producing the best food, we overlooked the quality of our labels.”

He goes on to note that in the past, the labels were printed more out of necessity, not as a marketing tool. Tim Cruz says, “Back then, we just did what the FDA made us do. But honestly, the labels we were putting on our product looked like something a four-year-old would produce.”

As Kanani Foods looked to update their labels, they considered outsourcing their label production. But the company prints about 20,000 labels for 195 products on a daily basis. The expense, management and warehousing of that amount of labels was not an option.

Instead, Kanani Foods chose to produce labels themselves using an Afinia L801 printer.

Tim Cruz says, “What’s nice about the Afinia printer is that I can easily set up the print schedule to print all the labels in one batch. We have different products for different customers, and using the variable data capabilities of the solution, we can print all the same size labels at once.”

Best of all, the labels the company produces now include the professional look and regulatory information that is needed by the customers of Kanani Foods.

Tim Cruz says, “We have USDA customers that need specific labeling and branding, and other customers that require different looks. We wanted a solution that could give us the ability to meet compliance, but also to create great brands. The Afinia printer is that solution.”

CertiFresh Cigar is another company that relies on the label to tell their story. The small company repackages cigars in unique, personalized packaging for high-end clients like golf courses, country clubs and private events. The labels they produce for these clients need to communicate a level of quality and sophistication – and be produced at an affordable price.

To achieve all these goals, CertiFresh Cigar added the Memjet-powered Afinia label printing technology to their production line. Adding the printer has transformed the look of their product.

CertiFresh is now printing high-quality labels with custom artwork, and can print tag stock and custom labels on tube packaging, which has proved very popular with their clients.

Michele Mahmood, Co-owner of CertiFresh Cigar, says, “The Memjet-powered Afinia printer has made such a huge impact on our business. The time saved alone has been incredible. It zips the labels right out, and it has enabled us to create a very prestigious look with our product.”

### A modern look for a winery

A winery in Germany also wanted to provide a more prestigious look for their labels.

After years of making due with plain labels that were expensive to produce, The Ortenauer Winery GmbH in Offenburg, Germany decided to take control of their label production.



The winery now prints their own color labels for their wine boxes. Printing labels in-house not only improves the label quality, it also provides the winery with the benefit of printing customized labels quickly and with greater flexibility.

The winery is using the Memjet-powered Printing Innovation iCube press. This new press has given the winery an improved, cohesive look to their entire packaging experience, as the bottle and box labels closely match in appearance and quality.

“Finally we have a unified product design: wine bottles and boxes have the same look and therefore both look valuable. Quality, colored labels on boxes are still a rarity in our industry. Our customers and partners have reacted very positively to this,” says Herbert Agradetti, winemaker at the Ortenauer winery GmbH.

### Personalization and Customization

Personalization drives a greater connection with the consumer. As a result manufacturers are using it to create customized products for specific markets, regions, or customers.

These customized products each require their own label, but the great variability and low quantity of these labels means having a third party print them is both cost and time prohibitive.

That is why German-based Dreidoppel GmbH moved the production of their labels in house.

Dreidoppel produces flavors for the ice cream and bakery industries. The company creates flavors based on requests from their customers, and as a result, has many variations of flavors. Each of these flavors requires their own label that describes the ingredients, nutrition, regulatory and product information. These labels are then used on the bottles, boxes and cartons that are shipped to the customer.

To accommodate for this great range of personalization – and ensure they could keep up to date with food regulations - the company purchased the Memjet-powered Vortex printer. This printer was integrated into the company’s manufacturing process.

The printer has enabled the company to produce much smaller batches of colorful, customized labels. This means they have shorter lead times and faster production. Like other manufacturers, taking control of their label production has greatly reduced the waste and cost associated with unused labels.

And because the ink used in the press is made under GMP principles, when used on appropriate labels or packaging material is safe to use for food packaging wherever the flavors are distributed.



## **PART 8: THE OPPORTUNITY IS YOURS**

Opportunities abound for small manufacturers.

But to succeed, these manufacturers need resources that can support the small economies of their business and provide the flexibility needed to flourish in this new manufacturing paradigm.

When it comes to label production, inkjet-powered solutions are uniquely positioned to support manufacturers in their quest for success. These solutions are easy to use, and offer the flexibility, cost saving, and control that manufacturers require at a total cost of ownership that fits perfectly with the economies of a small manufacturing operation

We invite you to learn how these solutions can impact your business. Visit us [www.memjet.com](http://www.memjet.com) or email us at [info@memjet.com](mailto:info@memjet.com)

