

LANDEC CORP \CA\  
Form 10-K  
August 01, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  
1934

For the Fiscal Year Ended May 25, 2014, or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  
1934

For the Transition period for \_\_\_\_\_ to \_\_\_\_\_.

Commission file number: **0-27446**

**LANDEC CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**94-3025618**  
(IRS Employer  
Identification Number)

**3603 Haven Avenue**

**Menlo Park, California 94025**

(Address of principal executive offices)

Registrant's telephone number, including area code:

**(650) 306-1650**

Securities registered pursuant to Section 12(b) of the Act:

| <u>Title of each class</u> | <u>Name of each exchange on which registered</u> |
|----------------------------|--|
| Common Stock               | The NASDAQ Global Select Stock Market            |

Securities registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes \_\_\_ No X

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes \_\_\_ No X

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No \_\_\_

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes X No \_\_\_



Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "large accelerated filer" and "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer

Accelerated Filer

Non Accelerated Filer

Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes  No

The aggregate market value of voting stock held by non-affiliates of the Registrant was approximately \$294,141,000 as of November 24, 2013, the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sales price on The NASDAQ Global Select Market reported for such date. Shares of Common Stock held by each officer and director and by each person who owns 10% or more of the outstanding Common Stock have been excluded from such calculation in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of July 18, 2014, there were 26,839,725 shares of Common Stock outstanding.

#### **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive proxy statement relating to its October 2014 Annual Meeting of Stockholders which statement will be filed not later than 120 days after the end of the fiscal year covered by this report, are incorporated by reference in Part III hereof.



**LANDEC CORPORATION**

## ANNUAL REPORT ON FORM 10-K

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## **PART I**

### **Item 1. Business**

This report contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Words such as “projected,” “expects,” “believes,” “intends,” “assumes” and similar expressions are used to identify forward-looking statements. These statements are made based upon current expectations and projections about our business and assumptions made by our management and are not guarantees of future performance, nor do we assume any obligation to update such forward-looking statements after the date this report is filed. Our actual results could differ materially from those projected in the forward-looking statements for many reasons, including the risk factors listed in Item 1A. “Risk Factors” and the factors discussed below.

### **Corporate Overview**

Landec Corporation and its subsidiaries (“Landec” or the “Company”) design, develop, manufacture and market differentiated products in food and biomedical materials markets and license technology applications to partners. The Company is focused on health and wellness solutions and applications within the packaged food and biomaterial markets. In our Apio, Inc. (“Apio”) food business, we are committed to offering healthy, fresh produce products conveniently packaged to consumers. Apio also exports whole fruit and vegetables, predominantly to Asia through its subsidiary, Cal Ex Trading Company (“Cal-Ex”). In our Lifecore Biomedical, Inc. (“Lifecore”) biomedical materials business, we commercialize products that enable people to stay more active as they grow older.

Landec’s food and biomedical materials businesses utilize polymer chemistry technology, a key differentiating factor. Both core businesses focus on business-to-business selling such as selling directly to retail grocery store chains and club stores for Apio and directly to large ophthalmic suppliers for Lifecore. Both core businesses also benefit from the momentum that underlies consumer interest in healthy living - eating better and staying active.

Within our two core businesses, Landec has three operating segments – Food Products Technology, Food Export and HA-based Biomaterials, each of which is described below. Financial information concerning each of these segments for fiscal years 2014, 2013 and 2012 is summarized in Note 14 to the Consolidated Financial Statements.

Apio operates our Food Products Technology business, which combines our proprietary BreatheWay® food packaging technology with the capabilities of a large national food supplier and value-added produce processor which sells products under the Eat Smart® and GreenLine® brands. In Apio’s value-added operations, produce is processed

by trimming, washing, mixing, and packaging in bags and trays that in most cases incorporate Landec's BreatheWay membrane technology. The BreatheWay membrane increases shelf life and reduces shrink (waste) for retailers and helps ensure that consumers receive fresh produce by the time the product makes its way through the supply chain. Apio also licenses the BreatheWay technology to partners such as Chiquita Brands International, Inc. ("Chiquita") for packaging and distribution of bananas and to Windset Holding 2010 Ltd., a Canadian corporation ("Windset"), for packaging of greenhouse grown cucumbers and peppers.

Apio also operates the Food Export business. The Food Export business purchases and sells whole fruit and vegetable products predominantly to Asian markets.

Lifecore operates our Biomaterials business and is principally involved in the manufacture of pharmaceutical-grade sodium hyaluronate ("HA") products. Sodium hyaluronate is a naturally occurring polysaccharide that is widely distributed in the extracellular matrix in animals and humans. Based upon Lifecore's expertise working with highly viscous HA, the Company also specializes in aseptic filling services, as a contract development and manufacturing organization (CDMO), for difficult to handle (viscous) medicines filled in finished dose syringes.

Landec was incorporated in California on October 31, 1986 and reincorporated as a Delaware corporation on November 6, 2008. Our common stock is listed on The NASDAQ Global Select Market under the symbol "LNDC".

## **Technology Overview**

The Company has two proprietary polymer technology platforms: 1) Intelimer® materials which are the key technology behind our BreatheWay membrane technology, and 2) hyaluronan biopolymers. The Company's materials are generally proprietary as a result of being patented or due to being specially formulated for specific customers to meet specific commercial applications and/or specific regulatory requirements. The Company's polymer technologies, its customer relationships and trade names and its strong channels of distribution, are the foundation and key differentiating advantages on which Landec has built its business.

### ***A) Intelimer Polymers***

Intelimer polymers are crystalline, hydrophobic polymers that use a temperature switch to control and modulate properties such as viscosity, permeability and adhesion when varying the materials' temperature above and below the temperature switch. The sharp temperature switch is adjustable at relatively low temperatures (0°C to 100°C) and the changes resulting from the temperature switch are relatively easy to maintain in industrial and commercial environments. For instance, Intelimer polymers can change within the range of one or two degrees Celsius from a non-adhesive state to a highly tacky, adhesive state; from an impermeable state to a highly permeable state; or from a solid state to a viscous liquid state.

Landec's proprietary polymer technology is based on the structure and phase behavior of Intelimer materials. The abrupt thermal transitions of specific Intelimer materials are achieved through the controlled use of hydrocarbon side chains that are attached to a polymer backbone. Below a pre-determined switch temperature, the polymer's side chains align through weak hydrophobic interactions resulting in a crystalline structure. When this side chain crystallizable polymer is heated to, or above, this switch temperature, these interactions are disrupted and the polymer is transformed into an amorphous, viscous state. Because this transformation involves a physical and not a chemical change, this process can be repeatedly reversible. Landec can set the polymer switch temperature anywhere between 0°C to 100°C by varying the average length of the side chains.

Landec's Intelimer materials are readily available and are generally synthesized from long side-chain acrylic monomers that are derived primarily from natural materials such as coconut and palm oils that are highly purified and designed to be manufactured economically through known synthetic processes. These acrylic-monomer raw materials are then polymerized by Landec leading to many different side-chain crystallizable polymers whose properties vary depending upon the initial materials and the synthetic process. Intelimer materials can be made into many different forms, including films, coatings, microcapsules and discrete forms. Intelimer polymers are the coatings on the substrate used to form our BreatheWay membranes.

*BreatheWay Membrane Packaging*

Certain types of fresh-cut and whole produce can spoil or discolor rapidly when packaged in conventional packaging materials and, therefore, are limited in their ability to be distributed broadly to markets. The Company's proprietary BreatheWay packaging technology utilizes Landec's Intelimer polymer technology to naturally extend the shelf life and quality of fresh-cut and whole produce.

After harvesting, vegetables and fruit continue to respire, consuming oxygen and releasing carbon dioxide. Too much or too little oxygen can result in premature spoilage and decay. The respiration rate of produce varies for each fruit and vegetable. Conventional packaging films used today, such as polyethylene and polypropylene, can be made with modest permeability to oxygen and carbon dioxide, but often do not provide the optimal atmosphere for the packaged produce. To achieve optimal product performance, each fruit or vegetable requires its own unique package atmosphere conditions. The challenge facing the industry is to develop packaging that meets the highly variable needs that each product requires in order to achieve value-creating performance. The Company believes that its BreatheWay packaging technology possesses all of the critical functionalities required to serve this diverse market. In creating a product package, a BreatheWay membrane is applied over a small cutout section or an aperture of a flexible film bag or plastic tray. This highly permeable "window" acts as the mechanism to provide the majority of the gas transmission requirements for the entire package. These membranes are designed to provide three principal benefits:

*High Permeability.* Landec's BreatheWay packaging technology is designed to permit transmission of oxygen and carbon dioxide at 300 to 1,000 times the rate of conventional packaging films. The Company thinks that these higher permeability levels will facilitate the packaging diversity required to market many types of fresh-cut and whole produce in many package sizes and configurations.

*Ability to Adjust Oxygen and Carbon Dioxide Ratios.* BreatheWay packaging can be tailored with carbon dioxide to oxygen transfer ratios ranging from 1.0 to 12.0 to selectively transmit oxygen and carbon dioxide at optimum rates to sustain the quality and shelf life of packaged produce. Other high permeability packaging materials, such as micro-perforated films cannot differentially control carbon dioxide permeability resulting in sub-optimal package atmosphere conditions for many produce products.

*Temperature Responsiveness.* Landec has developed breathable membranes that can be designed to increase or decrease permeability in response to environmental temperature changes. The Company has developed packaging that responds to higher oxygen requirements at elevated temperatures but is also reversible, and returns to its original state as temperatures decline. As the respiration rate of fresh produce also increases with temperature, the BreatheWay membrane's temperature responsiveness allows packages to compensate for the change in produce respiration by automatically adjusting gas permeation rates. By doing so, detrimental package atmosphere conditions are avoided and improved quality is maintained through the distribution chain.

## ***B) Sodium Hyaluronate (HA)***

Sodium hyaluronate is a non-crystalline, hydrophilic polymer that exists naturally as part of the extracellular matrix in many tissues within the human body, most notably within the aqueous humor of the eye, synovial fluid, skin and umbilical cord. The viscoelastic properties and water solubility of HA make it ideal for medical applications where space maintenance, lubricity or tissue protection are critical. Because of its widespread presence in tissues, its critical role in normal physiology, and its high degree of biocompatibility, the Company believes that hyaluronan will continue to be used in existing applications and for an increasing variety of other medical applications.

Sodium hyaluronate can primarily be produced in two ways, either through bacterial fermentation or through extraction from rooster combs. Lifecore produces HA only from fermentation, using an extremely efficient microbial fermentation process and a highly effective purification operation.

Sodium hyaluronate was first demonstrated to have commercial medical utility as a viscoelastic solution in cataract surgery. In this application, it is used for maintaining the space in the anterior chamber and protecting corneal tissue

during the removal and implantation of intraocular lenses. The first ophthalmic HA product, produced by extraction from rooster comb tissue, became commercially available in the United States in 1981. In 1985, Lifecore introduced the bacterial fermentation process to manufacture premium HA and received patent protection until 2002. HA-based products, produced either by rooster comb extraction or by fermentation processes such as Lifecore's, have since gained widespread acceptance in ophthalmology and are currently used in the majority of cataract extraction procedures in the world. HA has also become a significant component in several products used in orthopedics. Lifecore's HA is used as a viscous carrier for allogeneic freeze-dried demineralized bone used in spinal surgery, and as the active component of devices to treat the symptoms of osteoarthritis, and as a component to provide increased lubricity to medical devices. Lifecore's HA has also been utilized in veterinary drug applications to treat traumatic arthritis.

### **Description of Business Segments**

In this Description of Business Segments section, "Apio" and the "Food Products Technology business" will be used interchangeably; however, when describing Apio's export business it will be referred to as the "Food Export business".

***A) Food Products Technology Business***

The Food Products Technology business had revenues of \$361 million for the fiscal year ended May 25, 2014, \$320 million for the fiscal year ended May 26, 2013 and \$208 million for the fiscal year ended May 27, 2012.

Based in Guadalupe, California, Apio's primary business is fresh-cut and whole value-added products typically packaged in our proprietary BreatheWay packaging. Apio's fresh-cut value-added products business markets a variety of fresh-cut and whole vegetables to the top retail grocery chains, club stores and food service operators. During the fiscal year ended May 25, 2014, Apio shipped approximately twenty-nine million cartons of produce to its customers throughout North America, primarily in the United States.

Most vegetable products packaged in our BreatheWay packaging have 17 to 20 days of shelf life. In addition to packaging innovation, Landec's Apio food business develops innovative blends and combinations of vegetables that are sold in flexible film bags or rigid trays. More recently, the Company has launched a family of salad kits that are comprised of "superfood" mixtures of vegetables with healthy toppings/dressings. The launch of the first of these products called Sweet Kale Salad has broken all of Apio's records for speed of adoption with weekly sales of well over \$1 million as of May 2014. Additionally, we have launched several other superfood salad kits including Ginger Bok Choy, Apple Fennel, Kale and Chard Stir Fry and Shanghai Stir Fry, as examples. The Company's expertise includes accessing leading culinary experts and nutritionists nationally to help in the new product development process. We believe that our new products are "on trend" and strong market acceptance supports this belief. Recent statistics show that 39% of Americans are obese and 23% of Americans have diabetes. More and more consumers are beginning to make better food choices in their schools, homes and in restaurants and that is where our superfood products can fit into consumers daily healthy food choices.

In addition to proprietary packaging technology and a strong new product development pipeline, the Company has strong channels of distribution throughout North America with retail grocery store chains and club stores. Landec has one or more of its products in over 70% of all retail and club store sites in North America giving us a strong platform for introducing new products.

The Company sells its products under the nationally-known brands EatSmart® and GreenLine®. The Company also periodically licenses its BreatheWay packaging technology to partners such as Chiquita for packaging bananas and to Windset for packaging peppers and cucumbers that are grown hydroponically in greenhouses. The Company is engaged in the testing and development of other BreatheWay products. These packaging license relationships generate revenues either from product sales or royalties once commercialized.

**Apio Business Model**

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Landec is working with leaders in club stores, retail grocery chains and food service customers. The Company thinks it will have growth opportunities for the next several years through new customers and the introduction of innovative products in the United States, expansion of its existing customer relationships, and export and shipment of specialty packaged produce.

Landec manufactures its BreatheWay packaging through selected qualified contract manufacturers. In addition to using BreatheWay packaging for its value-added produce business, the Company markets and sells BreatheWay packaging directly to select partner food distributors.

There are five major distinguishing characteristics of Apio that provide competitive advantages in the Food Products Technology market:

**Value-Added Supplier:** Apio has structured its business as a marketer and seller of branded and private label fresh-cut and whole value-added produce. It is focused on selling products under its Eat Smart and GreenLine brands and private label brands for its fresh-cut and whole value-added products. As retail grocery chains, club stores and food service operators consolidate, Apio is well positioned as a single source of a broad range of products.

**Reduced Farming Risks:** Apio reduces its farming risk by not taking ownership of farmland, and instead, contracts with growers for produce and during certain times of the year, enters into joint ventures with growers for produce. The year-round sourcing of produce is a key component to the fresh-cut and whole value-added processing business.

**Access to Customer Base:** Apio has strategically invested in the rapidly growing fresh-cut and whole value-added business. Apio's value-added processing plant in Guadalupe, CA, is automated with state-of-the-art vegetable processing equipment. Apio operates one large central processing facility in one of the lowest cost growing regions in California, the Santa Maria Valley, and for the majority of its non-green bean vegetable business, uses its packaging technology for nationwide delivery. With the acquisition of GreenLine, Apio now has three East Coast processing facilities and five East Coast distribution centers for nationwide delivery of green beans and recently Apio began processing non-green bean products in one of our East Coast processing facilities to meet the next-day delivery needs of customers.

**Expanded Product Line Using Technology and Unique Blends:** Apio, through the use of its BreatheWay packaging technology, is introducing new value-added products each year. These new product offerings range from various sizes of fresh-cut bagged products, to vegetable trays, to whole produce, to vegetable salads and to snack packs. During the last twelve months, Apio has introduced eleven new unique products.

**Products Currently in Over 70% of U.S. Retail Grocery Stores:** With the acquisition of GreenLine, Apio now has products in over 70% of all U.S. retail grocery stores. This gives Apio the opportunity to cross sell Eat Smart value-added products to GreenLine customers and GreenLine value-added products to Eat Smart customers.

*Windset*

On February 15, 2011, Apio entered into a share purchase agreement (the “Purchase Agreement”) with Windset. Pursuant to the Purchase Agreement, Apio purchased 150,000 senior preferred shares for \$15 million and 201 common shares for \$201 (the “Purchased Shares”). The Company’s common shares represent a 20.1% interest in Windset. The non-voting senior preferred shares yield a cash dividend of 7.5% annually. The dividend is payable within 90 days of each anniversary of the execution of the Purchase Agreement. The Purchase Agreement includes a put and call option, which can be exercised on the sixth anniversary of the Purchase Agreement whereby Apio can exercise the put to sell its Purchased Shares to Windset, or Windset can exercise the call to purchase the Purchased Shares from Apio, in either case, at a price equal to 20.1% of the appreciation in the fair market value of Windset from the date of the Company’s investment through the put/call date, plus the purchase price of the Purchased Shares. Under the terms of the arrangement with Windset, the Company is entitled to designate one of five members on the Board of Directors of Windset. On July 15, 2014, the Company purchased an additional 6.8% of Windset common stock and 8.5% of Windset’s outstanding junior preferred stock for an aggregate price of \$11.0 million increasing its ownership to 26.9% of Windset’s common stock.

The Company thinks that hydroponically grown produce using Windset's know-how and growing practices will result in higher yields with competitive growing costs that will provide dependable year round supply to Windset's customers. In addition, the produce grown in Windset's greenhouses has a very high safety profile as no soil is used in the growing process. Windset owns and operates greenhouses in British Columbia, Canada and in Nevada and California. In addition to growing produce in their own greenhouses, Windset has numerous marketing arrangements with other greenhouse growers and utilizes buy/sell arrangements to meet fluctuation in demand from their customers.

***B) Food Export Business***

Food Export revenues consist of revenues generated from the purchase and sale of primarily whole commodity fruit and vegetable products to Asia through Apio's export company, Cal-Ex. The Food Export business is a commission-based buy/sell business that realizes a gross margin in the 5-8% range.

The Food Export business had revenues of \$70 million for the fiscal year ended May 25, 2014, \$79 million for the fiscal year ended May 26, 2013 and \$71 million for the fiscal year ended May 27, 2012.

Apio is strategically positioned with Cal-Ex to benefit from the growing population and wealth in Asia and other parts of the world over the next decade. Through Cal-Ex, Apio is currently one of the largest U.S. exporters of broccoli to Asia. Other large export items include apples, grapes, stonefruit and citrus.

***C) HA-based Biomaterials***

Our HA-based Biomaterials business operates through our Lifecore subsidiary. Lifecore had revenues of \$46 million for the fiscal year ended May 25, 2014, \$41 million for the fiscal year ended May 26, 2013 and \$34 million for the fiscal year ended May 27, 2012.

Lifecore operates our medical materials business and is principally involved in the manufacture of pharmaceutical-grade sodium hyaluronate products in the form of injectable products for ophthalmologic and orthopedic applications. There is now a greater percentage of Americans age 65 and older than at any other time in U.S. history and currently over 40 million Americans are 65 years of age or older and this trend is going to accelerate dramatically over the upcoming years. As our population ages, eye surgeries such as cataract surgeries, are going to increase. Additionally, patients will seek joint therapy as cartilage and soft tissue deteriorates. HA injections are a

primary course of treatment and Lifecore has built a leadership position in the markets it serves. It is estimated that there will be 22 million cataract surgeries in 2014 worldwide. Lifecore's expertise includes its ability to ferment, separate, purify, and aseptically fill HA for injectable product use. In addition to ophthalmic and orthopedic uses, veterinary medicine is another application for Lifecore's HA. Lifecore leverages its fermentation process to manufacture premium, pharmaceutical-grade HA and uses its aseptic filling capabilities to also deliver private-labeled HA finished products to its customers. Lifecore sells its products through partners in the U.S., Europe and South America. Lifecore has built its reputation as a premium supplier of HA.

Lifecore's products are primarily sold to strategic marketing partners for use in three medical areas: (1) Ophthalmic, (2) Orthopedic and (3) Veterinary. In addition, Lifecore provides product development services to its partners for HA-based, as well as non-HA based, fermented products and aseptically formulated products. These services include activities such as tech transfer, material component changes, analytical method development, pilot studies, stability studies, process validation, and clinical production.

By leveraging its fermentation process and aseptic formulation and filling expertise, Lifecore has become a leader in the supply of HA-based products for multiple applications, and has taken advantage of non-HA device and drug opportunities by leveraging its expertise in manufacturing and aseptic syringe filling capabilities. Elements of Lifecore's strategy include the following:

- *Establish strategic relationships with market leaders.* Lifecore will continue to develop applications for products with partners who have strong marketing, sales and distribution capabilities to end-user markets. Through its strong reputation and history of providing pharmaceutical grade HA and products, Lifecore has been able to establish long-term relationships with the market leading ophthalmic surgical companies, and leverages those partnerships to attract new relationships in other medical markets.

- *Expand medical applications for HA.* Due to the growing knowledge of the unique characteristics of HA, and the role it plays in normal physiology, Lifecore continues to identify and pursue opportunities for the use of HA in other medical applications, such as wound care, aesthetic surgery, drug delivery, device coatings and through pharmaceutical sales to academic and corporate research customers. As part of this effort, Lifecore continues to explore applications for its Corgel® Biohydrogel technology licensed from the Cleveland Clinic Foundation. Further applications may involve expanding process development activity and/or additional licensing of technology.
- *Utilize manufacturing infrastructure to pursue contract aseptic filling and fermentation opportunities.* Lifecore has made strategic capital investments in its contract manufacturing and development business focusing on extending its aseptic filling capacity and capabilities. It is investing in this segment to meet increasing partner demand and attract new contract filling opportunities. Lifecore is using its manufacturing capabilities to provide contract manufacturing and development services to its partners in the area of sterile pre-filled syringes and fermentation and purification requirements.
- *Maintain flexibility in product development and supply relationships.* Lifecore's vertically integrated development and manufacturing capabilities allow it to establish a variety of contractual relationships with global corporate partners. Lifecore's role in these relationships extends from supplying HA raw materials to providing tech transfer and development services to manufacturing aseptically-packaged, finished sterile products and to assuming full supply chain responsibilities.

## **Trademarks/Trade names**

Intelimer®, Landec®, Apio™, Eat Smart®, BreatheWay®, GreenLine®, Clearly Fresh™, Lifecore®, LUROC® and Ortholure™ are some of the trademarks or registered trademarks and trade names of the Company in the United States and other countries. This Annual Report on Form 10-K also refers to the trademarks of other companies.

## **Sales and Marketing**

Apio is supported by dedicated sales and marketing resources. Apio has 36 sales and marketing employees, located in central California and throughout the U.S., supporting the Food Products Technology business and the Food Export business. During fiscal years 2014, 2013 and 2012, sales to the Company's top five customers accounted for approximately 42%, 40% and 45%, respectively, of its revenues, with the top two customers, both from the Food Products Technology segment, Costco Wholesale Corporation which accounted for approximately 21%, 16%, and 17%, respectively, and Wal-mart, Inc. which accounted for approximately 11%, 13%, and 11%, respectively, of the

Company's revenues. A loss of either of these customers would have a material adverse effect on the Company's business.

Lifecore sells products to partners under supply agreements and also through distribution agreements. Excluding research sales, Lifecore does not sell to end users and, therefore, does not have the traditional infrastructure of a dedicated sales force and marketing employees and its name recognition allows Lifecore to attract new customers and offer its services with a minimal marketing and sales infrastructure.

### **Seasonality**

Apio's sales are seasonal. The Food Products Technology business can be affected by seasonal weather factors, such as the high cost of sourcing product due to a shortage of essential value-added produce items, which have impacted quarterly results in the past. The Food Export business also typically recognizes a much higher percentage of its revenues and profit during the first half of Landec's fiscal year compared to the second half. Lifecore's business is not significantly affected by seasonality.

## **Manufacturing and Processing**

### *Food Products Technology Business*

The manufacturing process for the Company's proprietary BreatheWay packaging products is comprised of polymer manufacturing, membrane manufacturing and label package conversion. A third party toll manufacturer currently makes virtually all of the polymers for the BreatheWay packaging system. Select outside contractors currently manufacture the breathable membranes, and Landec has transitioned virtually all of the label package conversion to Apio's Guadalupe facility to meet the increasing product demand and to provide additional developmental capabilities.

Apio processes virtually all of its fresh-cut, value-added non-green bean products in its processing facility located in Guadalupe, California. Cooling of produce is done through third parties and Apio Cooling LP, a separate consolidated subsidiary in which Apio has a 60% ownership interest and is the general partner.

Apio processes its fresh-cut, value-added green bean products, acquired with the acquisition of GreenLine in April 2012, in four processing plants located in Guadalupe, California; Bowling Green, Ohio; Hanover, Pennsylvania; and Vero Beach, Florida.

### *Hyaluronan-based Biomaterials Business*

The commercial production of HA by Lifecore requires fermentation, separation and purification capabilities. Products are supplied in a variety of bulk and single dose configurations.

Lifecore produces its HA through a bacterial fermentation process. Medical grade HA was initially commercially available only through an extraction process from rooster combs. Lifecore believes that the fermentation manufacturing approach is superior to rooster comb extraction because of greater efficiency and flexibility, a more favorable long-term regulatory environment, and better economies of scale in producing large commercial quantities. Today's HA competitors are primarily utilizing a fermentation process.

Lifecore's 114,000 square foot facility in Chaska, Minnesota is used primarily for the HA manufacturing process, formulation and aseptic syringe and bulk filling. The Company considers that the current inventory on-hand, together with its manufacturing capacity, will be sufficient to allow it to meet the needs of its current customers for the foreseeable future.

Lifecore provides versatility in the manufacturing of various types of finished products. It supplies several different forms of HA in a variety of molecular weight fractions as powders, solutions and gels, and in a variety of bulk and single-use finished packages. Lifecore continues to conduct development work designed to improve production efficiencies and expand its capabilities to achieve a wider range of HA product specifications in order to address the broadening opportunities for using HA in medical applications.

The FDA inspects the Company's manufacturing systems periodically and requires compliance with the FDA's Quality System Regulation ("QSR"). In addition, Lifecore's customers conduct intensive quality audits of the facility and its operations. Lifecore also periodically contracts with independent regulatory consultants to conduct audits of its operations. Similar to other manufacturers subject to regulatory and customer specific requirements, Lifecore's facility was designed to meet applicable regulatory requirements and has been cleared for the manufacturing of both device and pharmaceutical products. The Company maintains a Quality System which complies with applicable standards and regulations: FDA Medical Device Quality System requirements (21 CFR 820); FDA Drug Good Manufacturing Practices (21 CFR 210-211); European Union Good Manufacturing Practices (EudraLex Volume 4); Medical Device Quality Management System (ISO 13485); European Medical Device Directive; Canadian Medical Device Regulations; International Guide for Active Pharmaceutical Ingredients (ICH Q7), and Australian Therapeutic Goods Regulations). Compliance with these international standards of quality greatly assists in the marketing of Lifecore's products globally.

### *General*

Several of the raw materials used in manufacturing certain of the Company's products are currently purchased from a single source. Although to date the Company has not experienced difficulty acquiring materials for the manufacture of its products, no assurance can be given that interruptions in supplies will not occur in the future, that the Company will be able to obtain substitute vendors, or that the Company will be able to procure comparable materials at similar prices and terms within a reasonable time. Any such interruption of supply could have a material adverse effect on the Company's ability to manufacture and distribute its products and, consequently, could materially and adversely affect the Company's business, operating results and financial condition.

### **Research and Development**

Landec is focusing its research and development resources on both existing and new product applications. Expenditures for research and development for the fiscal years ended May 25, 2014, May 26, 2013 and May 27, 2012 were \$7.2 million, \$9.3 million and \$9.6 million, respectively. Research and development expenditures funded by corporate or governmental partners were zero during fiscal year 2014, \$688,000 during fiscal year 2013 and zero in fiscal year 2012. The Company may seek funds for applied materials research programs from U.S. government agencies as well as from commercial entities. The Company anticipates that it will continue to incur significant research and development expenditures in order to maintain its competitive position with a continuing flow of innovative, high-quality products and services. As of May 25, 2014, Landec had 61 employees engaged in research and development with experience in polymer and analytical chemistry, product application, product formulation, and mechanical and chemical engineering.

### **Competition**

The Company operates in highly competitive and rapidly evolving fields, and new developments are expected to continue at a rapid pace. Competition from large food processors, packaging companies, and medical and pharmaceutical companies is intense. Many of these competitors have substantially greater financial and technical resources and production and marketing capabilities than the Company, and many have substantially greater experience in conducting field trials, obtaining regulatory approvals and manufacturing and marketing commercial products. There can be no assurance that these competitors will not succeed in developing alternative technologies and products that are more effective, easier to use or less expensive than those which have been or are being developed by the Company or that would render the Company's technology and products obsolete and non-competitive.

## **Patents and Proprietary Rights**

The Company's success depends in large part on its ability to obtain patents, maintain trade secret protection and operate without infringing on the proprietary rights of third parties. The Company has had 43 U.S. patents issued of which 28 remain active as of May 25, 2014 with expiration dates ranging from 2014 to 2028. There can be no assurance that any of the pending patent applications will be approved, that the Company will develop additional proprietary products that are patentable, that any patents issued to the Company will provide the Company with competitive advantages or will not be challenged by any third parties or that the patents of others will not prevent the commercialization of products incorporating the Company's technology. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products or design around the Company's patents. Any of the foregoing results could have a material adverse effect on the Company's business, operating results and financial condition.

The commercial success of the Company will also depend, in part, on its ability to avoid infringing patents issued to others. If the Company were determined to be infringing any third party patent, the Company could be required to pay damages, alter its products or processes, obtain licenses or cease certain activities. In addition, if patents are issued to others which contain claims that compete or conflict with those of the Company and such competing or conflicting claims are ultimately determined to be valid, the Company may be required to pay damages, to obtain licenses to these patents, to develop or obtain alternative technology or to cease using such technology. If the Company is required to obtain any licenses, there can be no assurance that the Company will be able to do so on commercially favorable terms, if at all. The Company's failure to obtain a license to any technology that it may require to commercialize its products could have a material adverse impact on the Company's business, operating results and financial condition.

## **Government Regulation**

Government regulation in the United States and other countries is a significant factor in the marketing of certain of the Company's products and in the Company's ongoing research and development activities. Some of the Company's products are subject to extensive and rigorous regulation by the FDA, which regulates some of the products as medical devices and which, in some cases, requires Pre-Market Approval ("PMA"), and by foreign countries, which regulate some of the products as medical devices or drugs. Under the Federal Food, Drug, and Cosmetic Act ("FDC Act"), the FDA regulates the clinical testing, manufacturing, labeling, distribution, sale and promotion of medical devices in the United States.

Other regulatory requirements are placed on the manufacture, processing, packaging, labeling, distribution, recordkeeping and reporting of a medical device and on the quality control procedures, such as the FDA's device QSR regulations. Manufacturing facilities are subject to periodic inspections by the FDA to assure compliance with device QSR requirements, along with pre-approval inspection (PAI) for PMA product introduction. Lifecore's facility is subject to inspections as both a device and a drug manufacturing operation. For PMA devices, the Company that owns the product submission is required to submit an annual report and to obtain approval of a PMA supplement for modifications to the device or its labeling. Other applicable FDA requirements include the medical device reporting ("MDR") regulation, which requires that the Company provide information to the FDA regarding deaths or serious injuries alleged to have been associated with the use of its devices, as well as product malfunctions that would likely cause or contribute to death or serious injury if the malfunction were to recur.

## **Employees**

As of May 25, 2014, Landec had 531 full-time employees, of whom 432 were dedicated to research, development, manufacturing, quality control and regulatory affairs and 99 were dedicated to sales, marketing and administrative activities. Landec intends to recruit additional personnel in connection with the development, manufacturing and marketing of its products. None of Landec's employees is represented by a union, and Landec considers its relationship with its emplo