

## B2B E-Commerce Awareness Workshop - for the Greenlife Industry

### Focus: Product Identification

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## Welcome & Introductions

### Presenters

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### Attendees

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## Purpose of the Workshop

- This workshop is an outcome of the GIEG-HAL Project (Phase 2), funded jointly by Horticulture Australia Limited, GIEG Members and additional project participants.
- GIEG Members (x10): Ball Australia, Debco, Envirogreen, NGIV, Oasis Australia, Plantmark, Proteaflora Nursery, Scotsburn Nurseries, United Nurseries and Yates
- Additional participants (x8): Bunnings, GS1 Australia, Kmart (Coles Group), NGIA, Plants Plus (Danks), Sunrise Growers, Syngenta Seeds and Waterwerks
- **The GIEG-HAL Project aims to build awareness of business to business (B2B) e-commerce in the greenlife industry.**

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## Agenda

½ day workshop, specifically for the greenlife industry – including seed and young plant suppliers, growers, wholesalers/distributors, nurseries, allied traders.

The workshop is delivered in 3 sessions:

- Session 1: Industry Overview & B2B Benefits Brief
- Session 2: Overview of Product Identification in an Electronic Environment
- Session 3: Scenario based Activity

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## B2B E-Commerce Awareness Workshop - for the Greenlife Industry

### Session 1 Industry Overview & B2B Benefits Brief

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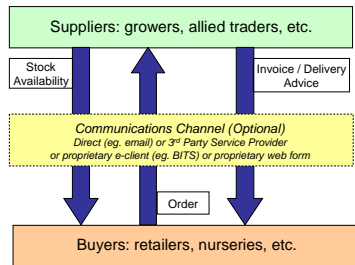
## Basic Terminology

- B2B = Business to Business; E-trading = electronic trading; E-Business, E-Commerce
- B2B E-Commerce = doing business electronically, eg. from a simple spreadsheet to complex transactions
- HIWG = Hardware Industry Working Group
- GIEG = Greenlife Industry E-Commerce Group (a sector group of the HIWG)
- GS1 = Global Supply Chain Standards Organisation (formerly EAN)
- GTIN = Global Trade Item Number = Bar code number
- HAL = Horticulture Australia Limited
- Supply Chain = The network used to deliver products and services from raw materials to end customers through an engineered flow of information, physical distribution, and payment.

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## Basic E-Business Model



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## What do you need for B2B?

- Computer(s)
- Communications channel (eg. internet access, 3rd party service provider)
- Ability to store and retrieve purchasing information in and out of your computer system in a consistent and reliable way, eg. using a spreadsheet (this can either be done in-house or using a service provider as described above)
- **Standard identification of products** (GS1/EAN numbering and bar coding by the supplier) – this is covered in Session 2

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## Industry Overview

- There are successful B2B implementations in the industry
- Most of this has been driven by the chain/discout stores
- Implementations are usually done to meet trading partner requirements and do not look at other opportunities
- Other industry sectors have implemented B2B more widely and are realising significant benefits
- It is an ongoing journey – of learning, and building capability (many are outsourcing tasks)
- Need to consider: What are the repercussions of not engaging in this new way of doing business?

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## National Industry Survey - 2006

- Phase 1 of the GIEG-HAL Project
- Purpose: To gain a snapshot of the current B2B awareness and capability within the industry, prior to developing a "B2B awareness workshop" (Phase 2)
- Survey was done in August/September 2006
- 1407 surveys distributed (email and post)
- 212 returned (15.1%)
  - 52% from wholesale nurseries
  - 27% from retail nurseries
  - 7% from propagation
  - 5% from allied traders
  - 3% from garden suppliers
  - 6% - others
- Context of results – skewed to those more interested, already aware of electronic ways of doing business.

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## Indicative Survey Results (1)

Highest scoring results:

- 35%, 0-4 full time staff
- 58% did not sell to multi-store buyers
- 67% did not send or receive structured electronic purchase orders
- Fax machines – mostly used for sending/receiving stock availability and purchase orders
- 53% had 2-5 computers (58% of these were networked)
- 95% had internet access
- PCs were running XP (82%) – ie. relatively new
- PCs – mostly used for email and office accounting (then internet banking); 40-50% for sending/receiving stock availability

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## Indicative Survey Results (2)

- 46% MYOB; 16% Quickbooks
- Large spread of other software applications used
- Majority of products identified by plant name (description); some use of internal numbers; about 15% reported the use of GTINs on purchase orders sent/received
- 49% of replies stated that products they dealt with were not bar coded
- About 40% of retailers reported the use of bar codes at POS
- 81% were maintaining product/price information on their computers
- 63% were maintaining inventory/availability information on their computers

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## Indicative Survey Results (3)

- Only 30% had an in-house IT resource (others were outsourcing)
- 68% reported they were looking to upgrade their systems within a year
- 66% were wanting to train staff within a year
- Highest perceived B2B benefit was to increase efficiency (66%)
- Highest barrier to implementing B2B was the lack of knowledge/understanding (58%)
- Highest area selected for training was in "Basic B2B E-commerce" (with the majority wanting this in the form of a half day workshop)

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## What do you need for B2B? – Review against Survey Results

Computer(s)	0 (1%) 1 (22%) 2-5 (53%) 6+ (23%) 82% XP (ie. relatively new)	✓
Communications	95% with computer(s) have internet access	✓
Ability to store and retrieve data	Those with computers run numerous software applications	✓
<b>Standard identification of products</b>	<b>Only 16% use GTINs</b> <b>Action: Link internal numbers to GTINs</b>	✗

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## Why do B2B e-trading?

- Retailers use electronic means to drive efficiency at POS (Point of Sale) – and are now extending this to purchasing
- Chain retailers are driving this as the new way to do business with them
- Internal benefits can be achieved as well
- Closer co-operation between buyer and supplier
- Prepare now to position your organisation for the future direction of business

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## B2B Benefits

1. Accuracy of data – both internal data and data that is exchanged (eg. on purchase orders and invoices)
2. Improved end customer/consumer service
3. More sales, less stock-outs, less write-downs
4. Improve the accuracy and ease inventory control and of stock-take
5. Efficient document handling
6. POS data is available to assist with forecasting of requirements
7. Accurate supply, ie right product, right place, right price, right quantity (eg, reduced claims)
8. Greater profitability due to streamlined, automated, integrated data flows, (eg, scan pick / pack or receipt)
9. Enables accurate and real-time business reporting, (eg, accurate sales data)
10. More efficient purchasing/supply processes
11. Builds trading partner relationships

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## Achieving B2B Benefits

- The benefits listed on the previous slide are general statements, but we will illustrate HOW these can be achieved in Session 3

Remember:

- Benefits can be achieved for all trading partners irrespective of their size, even small operators
- Benefits are achieved progressively – expect staged implementation to provide continuous improvement and ongoing benefits

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## The First Step.....

<b>Standard identification of products</b>	<b>Only 16% use GTINs</b> <b>Action: Link internal numbers to GTINs</b>	✗
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- The survey results show that to enable B2B, the key focus for the industry should be standard identification – use of GTINs
- In a manual environment internal numbering or use of plant names can work
- But, in an electronic environment the use of standard identification is **essential**
- How to identify Greenlife products using standards is the focus of the next session

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# Questions?

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## B2B E-Commerce Awareness Workshop - for the Greenlife Industry

### Session 2 Overview of Product Identification in an Electronic Environment

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### Agenda

- Who is GS1?
- The GS1 System
- Global Trade Item Numbers (for Retail Trade Items)
- Global Trade Item Numbers (for Non-Retail Trade Items)
- GTIN Allocation for Greenlife Products
- How to Print Bar Codes
- How to Make Sure the Bar Code Scans
- Bar Code Verification
- Other Considerations
- Where to Get Help!

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# Who is GS1?

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### Who is GS1?

- GS1 is a **not-for-profit** organisation
- GS1 consists of **105 national member organisations** driven by a membership of more than a million companies across **145 countries**
- GS1 assists more than **24 industry sectors** globally
- The GS1 System of standards is the most widely used standards system in the world

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### What do we mean by global standards?

**Agreement between trading partners to use a common language**



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**Who is GS1 Australia?**

GS1 Australia Office at Mt Waverley, Melbourne

GS1 Australia Office at Botany, Sydney

Administer & maintain the GS1 System of supply chain standards in Australia  
Current membership 16,000 companies across multi-industries (mainly brand owners allocating GTINs to their products)  
Estimate 400+ Greenlife members  
In excess of 18 industry sectors  
Over 95 staff in Melbourne & Sydney  
<http://www.gs1au.org>

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# The GS1 System

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**The GS1 System**

**The Global Language of Business**

**OVERALL BENEFITS:**  
Improving efficiency & visibility in supply and demand chains

**GS1 Solutions & Services using GS1 Standards**

**GS1 System - Integrated system of standards**

- GS1 BarCodes: Global standards for automatic identification
- GS1 eCom: Global standards for electronic business messaging
- GS1 GDSN: The environment for global data synchronisation
- EPCglobal: Global standards for RFID-based identification

**GS1 Identification Keys (e.g. GTIN\*, GLN, SSCC) and attribute data**  
\*GTIN is used to number/identify trade items

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**Previous Terminology - What's in a Name?**

Old Terminologies used for trade items

- APNs
- TUNs
- EANs
- Barcode Number
- Etc, etc

New Harmonized & Global Terminology  
GTIN = Global Trade Item Number

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**Global Trade Item Numbers are:**

- A **single, open** unified numbering structure for every item traded world-wide.
- Provides a **common** link (the number) when communicating about product or service information between trading partners.
- Are **unique**, every variant of an item is allocated a separate unique number
- Are **Non-significant**, they identify an item but contain no information about it
- Are **international**, GTINs are unique across all countries and all sectors
- Are **secure**, GTINs are fixed length, numeric and include a standard Check Digit

**Assigned by the product brand owner (enables identification of source) and provided to the retailers for their use**

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**GS1** **GTIN and Bar Code**

The GTIN is a numeric **short hand description of a product**

For a GTIN to be scanned into a computer it is encoded in a **bar code**

The bar code is **scanned** and **automatically capture the GTIN** and access information and data through a database in the computer

Trading partners (suppliers and buyers) all use the **numbers and bar codes allocated by the brand owner** (usually the supplier)

9312345000005

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**GS1** **Relationship between the GTIN and an Internal Number**

SKU = Internal Code for a Product

Often an SKU is used to represent **a number of different forms of the same product**

Buyers also have internal numbers and may be using the **same internal number as the supplier for different products**

GTINs are used as the **common link between the buyer and supplier** when communicating about products.

<b>Supplier Database</b> <b>SKU: 12345</b> GTIN 1: Punnet GTIN 2: Tray of 12 Punnets	Communication →	<b>Buyer Database</b> <b>SKU: ABC12</b> GTIN 1: Punnet GTIN 2: Tray of 12 Punnets
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**Global Trade Item Numbers (for Retail Trade Items)**

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**GS1** **Definition of a Retail Item**

A retail item is a good or a commodity sold **directly to consumers**, that most likely will be **scanned at point of sale (POS)**.

- Some items (eg, a tray of pansies) can be both scanned at POS and warehouse/non-retail/general distribution environment. These items have to be considered as **retail items** in regards to identification and bar coding.

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**GS1** **GTIN-13**

9312345 00 | 000 | 5

<b>GS1 COMPANY PREFIX</b> The first seven or nine digits are allocated by GS1 Australia to the member company	<b>ITEM REFERENCE</b> The next three or five digits are allocated to a specific product by the member company	<b>CHECK DIGIT</b> Checks the validity of the entire number by a mathematical formula
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**GS1** **One Trade Item = One GTIN**

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**GS1** One GTIN = One product

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**GS1** Unique GTIN-13

For every different variant of a trade item a unique GTIN should be allocated.

Punnet of blue pansies	931234500015
Punnet of red pansies	931234500029
Tray of 12 punnets of blue pansies	931234500036

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**GS1** When to change a GTIN?

General rule is:  
"Where there is a change in the consumer declaration of a trade item then the GTIN should change"

Visit [www.gs1au.org](http://www.gs1au.org) for GTIN Allocation Rules

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## Global Trade Item Numbers (for Non-Retail Trade Items)

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**GS1** Bar Codes for Non-Retail Trade Items

**ITF-14 Bar Code**  
- Use for printing on porous substrates

09312345000036

**GS1-128 Bar Code**  
- Use to include information additional to the GTIN

(01)19312345000019

The two bar code types most commonly used on non-retail trade items require a **14 digit GTIN**


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**GS1** Creating a 14 digit GTIN – Method 1


Create a **unique** GTIN-13 and place a **filler zero** at the start


Punnet (consumer unit)		931234500012
Tray of 12 punnets		0931234500029


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 **Creating a 14 digit GTIN – Method 2**


Create a GTIN-14 by **prefixing the GTIN** of the individual product with an Indicator (1-8), then **re-calculating the Check Digit**.


Punnet  931234500**0012**

Tray of 12 punnets  **1**931234500**0019**


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# GTIN Allocation for Greenlife Products

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 **Stepped Approach**


- It is important to realise that this is not a perfect world – so migration to the best practice goal as detailed in the coming slides is a **stepped approach**
- Aim of this section: Understand the the minimum requirements detailed for each plant type
- We will provide you with a detailed document to take home which provides more information about this topic
- **Note: The final goal for all of the plant groups is the same!**

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 **A. Punnets and Potted Colour**


- **Traditional Method**
  - Identify and bar code by price point only or by price point and species
- **Minimum Requirement**
  - Identify and bar code by species/variety/colour and packaging configuration where appropriate
- **Future Goal**
  - For individual items, as per minimum requirement.
  - Identify and bar code standard trays and set assortments

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 **B. Perennials, Natives and Climbers, etc**

- **Traditional Method**
  - Identify and bar code by pot size irrespective of species
- **Minimum Requirement**
  - Identify and bar code by species/variety/colour and packaging configuration
- **Future Goal**
  - For individual items, as per minimum requirement.
  - Identify and bar code standard trays and set assortments per species and variety

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 **C. Trees and Mature Plants**

- **Traditional Method**
  - Identify and bar code by pot size and species
- **Minimum Requirement**
  - Identify and bar code by species/variety/colour, plant size and packaging configuration (if appropriate)
- **Future Goal**
  - For individual items, as per minimum requirement.
  - Identify and bar code levels of packaging eg, for bare-rooted products – bundle, carton, crate

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**GS1** Summary

- Minimum Requirements - essentially the same
  - A - Identify and bar code by species/variety/colour and packaging configuration where appropriate
  - B - Identify and bar code by species/variety/colour and packaging configuration
  - C - Identify and bar code by species/variety/colour, plant size and packaging configuration (if appropriate)
- Future Goal – essentially the same
  - For individual items, as per minimum requirement.
  - Identify and bar code levels of packaging


.....We will explore these concepts further in Session 3 using pansies as an example, but the concepts highlighted are applicable to all plants.....

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## How to Print Bar Codes

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**GS1** Some Options for Printing Bar Codes



Thermal direct, thermal transfer, laser etc.  
Variable data (batch number, dates...)  
Small volumes  
Print & apply  
Need to check and clean heads



Traditional, i.e. flexographic, gravure, screen, offset

- High volume
- Static data (GTIN)
- Bar code will be incorporated in artwork

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## How to make sure the bar code scans.....


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**GS1** Location

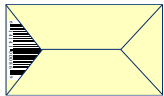
There are specific location requirements depending upon the level of packaging

- Retail
- Non-Retail
- Logistics Unit

All these requirements are detailed in the reference material discussed later



Bar codes do NOT scan around corners



Avoid package seams or seals

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**GS1**



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**GS1** **Print Quality**

Clear crisp well defined bars  
 Watch for voids and smudging  
 Print quality requires regular ongoing checks of internal printers  
 There must be enough contrast between the dark bars and the light spaces for a scanner to be able to read the bar code





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**GS1** **Height and Magnification**

**Magnification**  
 Recommended magnification ranges have been set for all GS1 Bar Code Symbols  
 Dependent on print method  
 Determine where bar code will be scanned  
 Consider industry requirements

**Height**  
 All bar code symbols have a nominal (target) height  
 Bar codes being scanned at POS fixed relationship between the width and height to enable omni-directional scanning

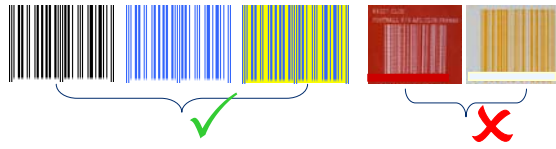
**Nominal bar code**  


**Truncated bar code**  
  
 Scanner beam fails to read bars


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**GS1** **Colours and Light Margins**

**Bar and background colour**



**Light margins**



- Area to the left and right of all bar codes
- Enable scanner to determine start and end of the bar code
- Must keep all graphics, dark colours clear of these areas

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**Bar Code Verification**

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**GS1** **Verification**

Provides the **reassurance** that the bar code symbol will scan correctly throughout the supply chain, leading to untroubled supplier/customer relationships.

Verification of bar codes should occur both during **symbol product and after product manufacture**.

Using a scanner to check the readability of bar codes is inadequate since **no two bar code readers are exactly the same**.

The GS1 Australia Verification Service provides assessment of the bar code against technical criteria

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**GS1** **Bar Code Verification Report**

Overall performance

Product & bar code details

Scanning environment

Overall ISO grade

Meets all EAN-UCC minimum guidelines and ISO grades

Testing Summary

Complies to Minimum EAN-UCC Specifications	
Omni-directional Retail Point of Sale	✓
Complies to EAN-UCC Location Recommendations	✓
ISO Grade: <b>II B: A/B</b>	<b>4.0</b>
Scan Rate	100%

Business Critical Comments

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Questions?

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## B2B E-Commerce Awareness Workshop - for the Greenlife Industry

### Session 3 Scenario based Activity

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### Scenario based Activity

- Activity is based on two fictitious organisations FLO Growers (the supplier) and PLA Nursery (the buyer)
- Aim is to:
  - apply the learnings from Sessions 1 & 2
  - illustrate the list of possible benefits noted in Session 1
- Refer to Activity handout

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### Conclusion

#### Take home materials:

- GIEG B2B Benefits Brief
- GIEG Recommendation Paper: Identification of Plants for B2B E-Trading
- GIEG-HAL Project: Indicative Results from National B2B Capability Survey
- GS1 Information Pack

#### Other sources of information:

- GIEG Basic E-Commerce Fact Sheets from the HIWG website, [www.hiwg.org.au](http://www.hiwg.org.au)
- Hardware Industry Numbering & Bar Coding Guidelines (which includes a chapter on greenlife) - download from the HIWG or GS1 website (see next slide)

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## Hardware Industry Numbering and Bar Coding Guidelines



- Abridged version of the User Manual containing only information relevant to the hardware industry
- Contains broad hardware industry specific applications and examples
- A specific section for greenlife products

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