

UNIVERSITY OF CALGARY
HASKAYNE SCHOOL OF BUSINESS
FINAL EXAMINATION
FOUNDATIONS OF MARKETING

MKTG 317 - F2017

Time: 3 Hours

This exam consists of one question booklet with six single-sided pages and one blue answer booklet. Please provide your name, ID number and lecture section on both the question booklet and answer booklet and submit all materials on or before the conclusion of the allotted time.

There are 20 questions worth a total of 100 points. Answer all questions, in any order, in the blue answer booklet provided. Number your answers. Essays are not required. Short sentences, charts, diagrams and point-form responses are acceptable if they adequately explain your answer.

Materials allowed in the examination room:

- Question booklet and blue answer booklet (provided)
- Pens / Pencils / Erasers / White-out / Highlighters
- Non-programmable calculators without covers

NAME: _____

UCID: _____

SECTION:

_____	L01	We 12:00 – 14:45	Boivin
_____	L02	We 15:00 – 17:45	Drake
_____	L03	Tu 12:30 – 15:15	Boivin
_____	L04	Th 12:30 – 15:45	Kulchitsky
_____	L05	Tu 12:30 – 15:15	Kulchitsky
_____	L06	Th 12:30 – 15:45	Boivin

Please submit all exam materials at the conclusion of the exam.

“Greener Pastures”: The Launch of StaGreen by HydroCan

Anne T. Hale (1996)



StaGreen is a lawn fertilizer with one important difference; when applied to most types of grasses, StaGreen enables the root system to retain water longer, thus reducing the need for both extra watering and frequent fertilizing. Unlike traditional chemical fertilizers, StaGreen’s pellets attach to the root system of a lawn to attract and retain moisture. Laboratory tests have demonstrated that StaGreen can reduce the need for manual watering up to 40% and extend the time between fertilizer applications by five weeks. HydroCan, the Canadian company holding the patent for this innovative chemical fertilizer, is ramping up production and is preparing for market launch. Prior to taking the product to market, HydroCan must identify the target market, estimate market potential, establish price and communication strategies and identify the best alternative to position the product.

1. The most recent definition of marketing, published by the American Marketing Association (AMA, 2007), expands the list of stakeholders to include more than just the end customer. List one additional stakeholder included in the AMA definition and explain why this stakeholder would be important to HydroCan. (3 marks)

Any one of the following – 1 mark for the stakeholder; 2 marks for a reasonable explanation

- Clients – Acknowledges the wants/needs of business/professional customer
- Partners – Acknowledges the role of supply and distribution channel agents in the delivery of value to end customers
- Society at large – Acknowledges the needs of society above that of just the end customer

2. Describe HydroCan’s business approach should they choose to enter the market using a:

- a. Market orientation. (3 marks)

- Customer focus on wants and needs of the market not on the organization’s products and services.

- b. Societal orientation. (3 marks)

- Adopting a market orientation subject to the long-term benefits of society

3. Does StaGreen meet the criteria for an effective brand name? Explain. (3 marks)

They can answer Yes or No but must defend their answer by addressing any of the following brand name criteria:

- Suggests benefits; distinctive and positive; fits the company and product image; simple and creative; easy to pronounce recognize and remember

Secondary data confirms that gardening is among the more popular summer activities in Canada. In 2016, households spent nearly \$3.3 billion, at the retail level, on gardening supplies. This figure includes \$1.3 billion on trees, shrubs and plants, \$1.1 billion on hand tools, pots, books, magazines and landscaping services and \$900 million on lawn care (of which 52% was for fertilizer). In a recent census, Statistics Canada (2016) reported that there are 13,250,000 households in Canada and that 60% of all households have a lawn and/or garden as part of their dwelling. An industry association representing Canada's manufacturers, wholesalers and retail distributors of nitrogen-based fertilizers, reported that the average Canadian household spends no less than 3.5 hours per week on lawn care and applies approximately 40 kg of chemical fertilizer each year.

Primary data collected for HydroCan confirmed that people tend to their gardens because they enjoy the great outdoors. Almost 68 percent of the respondents said it provided good exercise and 66 percent claimed they gardened for relaxation. The study confirmed that gardening is most popular with Boomers and early Gen-X and gaining interest with later Gen-X and early Gen-Y as they enter the home market. Roughly 52% of the respondents identified as female, 63% had some university education and 13% held advanced/professional degrees.

When asked about shopping behaviors, many respondents stated that the internet was a great source for information but was not a substitute for a visit to a retail centre. The majority of the respondents reported shopping for plants and garden accessories at the major home improvement stores, while a small segment found the stores overwhelming and preferred the friendliness of the local garden centers. Quality and variety of live plants ranked among the most important attributes when choosing a gardening retailer.

4. Provide a detailed segment description for StaGreen's target market: The Home Gardener. (4 marks)

Four required criteria as described in the tutorial and in-class exercises:

- Geographic
 - Macro – Canada
 - Micro – Suburbs
- Demographic
 - Gender
 - Male or Female or both (52% female)
 - Age
 - Boomers; Late Gen X & Early Gen-Y

- Psychographics
 - Gardening/outdoor oriented; “Enjoys the great outdoors”, enjoys “physical activity/exercise”, seeks “relaxation”; “likes visiting garden centers” for the touch and feel of “live plants”, seeks the “friendliness of garden centers”; likes internet as source of information but not shopping.
- Behavioral
 - Benefits – green lawns, lower watering bill, less work
 - Usage/Occasion/Loyalty – seasonal user; not overly loyal

5. As a component of the research design, StaGreen conducted a contextual literature review. What is the primary purpose of an academic literature review? (3 marks)

- To review theory and/or measurement of constructs of interest, or equivalent – 3 marks
- If they provide the higher level definition for a literature review “ To learn from others, to demonstrate familiarity with a body of knowledge and establish credibility” award 1 mark

6. For each of the following research designs, explain (1) the purpose of the design and (2) the type of data produced by the design:

a. Exploratory research. (3 marks)

- Informal discovery of ideas or define/redefine the business problem (2 marks)
- Qualitative data (1 mark)

b. Descriptive research. (3 marks)

- Describe characteristics of a population or develop conclusions (2 marks)
- Quantitative data (1 mark)

7. As part of the exploratory research, the following article was retrieved using proquest.com. Provide the APA standard reference. (3 marks).

Journal of Retailing 90 (2, 2014) 154–167



Distribution and Market Share

Kenneth C. Wilbur ^{a,*}, Paul W. Farris ^{b,1}

^a Rady School of Management, University of California, San Diego, United States

^b Business Administration, University of Virginia Darden School of Business Administration, United States

APA Reference:

Wilbur, K.C., & Farris, P.W., (2014). Distribution and market share. Journal of Retailing, 90(2), 154-167. Retrieved from <http://www.proquest.com>

(2 marks for correct APA reference for the article; 1 mark for correct retrieval from ProQuest)

8. A conjoint study estimated the attributes of fertilizer considered by home gardeners to be most important. Based on the part-worth utilities in Table 1:
- Estimate total utility for the least preferred product profile. (3 marks)
 - Rank order the product attributes from most important to least important. (4 marks)

Table 1 – Part-Worth Utilities

Price per kg		Element Ratio		Type		Release	
\$2.45	5.4	10:10:10	4.6	Natural	2.7	Fast	1.6
\$2.95	3.8	16:20:00	6.4	Manufactured	1.9	Controlled	2.7
Range of Utility							
1.6		1.8		0.8		1.1	

- Total utility for least preferred profile: $3.8 + 4.6 + 1.9 + 1.6 = 11.90$
- Rank order as follows: (1 mark for Element Ratio in 1st place; 1 mark for Price in 2nd place; 1 mark for Release in 3rd place, and 1 mark for Type in 4th place.)

- 1st - Element ratio
- 2nd - Price / kg
- 3rd - Release
- 4th - Type

The consumer fertilizer market is extremely competitive with Scott's lawn products and Ortho Chemicals controlling approximately 50% of the total consumer market. Both firms are headquartered in the United States (with divisional offices in Canada) and both have extensive international operations. The market share leader is Scott's with two powerful brands – Turf Builder and Miracle-Gro. Turf Builder is a slow-release fertilizer that reduces the number of applications required for a healthy lawn. Slow-release simply means that the fertilizing chemicals are released gradually over a number of months. Thus one application of slow-release fertilizer could last the entire season.

Although the three leading brands are competitively priced (Table 2), they differ on product attributes. Miracle-Gro is positioned as a plant-food and is not specifically targeted at lawn care. Ortho's Lawn and Weed combines fertilizer with a pesticides that prevents most common lawn infestations.

Table 2 – Comparative Analysis

Product Description	Package Size	Package Price	Annual Sales (\$ 000,000)	Annual Sales (000,000 kg)
Scott's Turf Builder	10 kg	\$24.49	79.6	32.5
Scott's Turf Builder	25 kg	\$58.99	46.8	19.8
Scott's Turf Builder	5 kg	\$13.99	18.7	6.7
Miracle-Gro Lawn & Garden	10 kg	\$29.45	28.1	9.5
Ortho Lawn & Weed	10 kg	\$23.99	60.8	25.3
Generic/Boutique/Other	Various	Various	234.0	96.2

Market research has shown that four out of ten consumers in this market have no concrete brand preferences. They rely heavily on in-store advertisements and sales staff for information and recommendations. Many consumers cannot recall a brand name or a manufacturer of fertilizer. The product with the highest brand-name awareness is Miracle-Gro; however, most associate this brand name with plant foods rather than lawn fertilizers. Because of consumer attitudes toward this product category, most manufacturers relied on a strong push strategy.

Lawn care products are primarily sold through discount stores such as Canadian Tire and Walmart, local garden centers and home improvement stores. The industry association estimates that 60% of all consumer fertilizer is purchased in discount stores, 30% in home improvement stores and 10% in garden centers and nurseries. Garden centers and nurseries tend to be independently owned and thus much more numerous. While the top ten discount chains in Canada account for over 89% of all sales from discount stores, the top 50 garden stores account for less than 28% of total retail sales. Home improvement stores are growing in numbers and tend to be large, powerful chains such as Home Depot.

9. Because the primary research demonstrated that consumers have little brand preference for lawn fertilizer, HydroCan believes the average consumer will use a heuristic decision rule to determine product choice.
 - a. Explain heuristic decision making for this product category. (3 marks)
 - Any short-cut in decision making that ignores the attributes of the product
 - b. Give one example of heuristic choice for fertilizer. (3 marks)
 - E.g., "Use what the salesperson recommends", "Use what I used last year", etc.
 - c. Theory suggests that repeat purchase is a necessary but not a sufficient condition for HydroCan to claim its users are demonstrating brand loyalty.

What additional criteria is necessary to classify loyalty? (3 marks)

- In addition to a behavioral components (repeat purchase), there must also be attitudinal components (e.g., satisfaction; willingness to act). Only 1 answer required.

10. Based on the information provided in the case:

- a. Estimate the total market potential (kg) in Canada for chemical-based fertilizers. (5 marks)

Information from the case: (allow rounding errors; No part marks)

- 13,250,000 households in Canada
- 60% of households report having a lawn/garden
- Annual application of 40kg of fertilizer per household

$13,250,000 \text{ households} \times 60\% = 7,950,000 \text{ lawns}$

$7,950,000 \text{ lawns} \times 40 \text{ kg / lawn} = 318,000,000$

Potential market = 318 million kg per year

- b. Report the market penetration (%) for this product category. (5 marks)

Information from the case: (Use students answer for potential market in (a) if necessary)

- Total annual sales = 190 million kg
- Potential market = 318 million kg

Market penetration = $190 \text{ million kg} / 318 \text{ million kg} = 60\%$

11. Develop a value proposition statement for StaGreen. (4 marks)

- Required elements: Product/brand; target market; competitors, competitive difference (1 mark for each)

E.g., For the home gardener, StaGreen is a chemical fertilizer that is better than any competing fertilizer (Scotts, MiracleGro, Ortho, etc.) because it enables the root system of the lawn to attract and retain moisture (reduces watering up to 40% and extends time between applications by 5 weeks).

12. Describe the competitive situation necessary for StaGreen to enter the market using:

- a. Attribute-based positioning. (3 marks)

- Competing head to head because StaGreen has attributes other competitors do not have or StaGreen has attributes that are better than those of a competing product.

b. Perception-based positioning. (3 marks)

- Competing by giving the perception that your product is better (has higher quality) when it has the same attributes and augmentation of competing products.

13. HydroCan's five-year plan is to move from a market penetration strategy with StaGreen to a diversification strategy.

a. Explain the difference between the two strategies. (3 marks)

- Penetration strategy = same product to same market
- Diversification strategy = different product to a new market

b. What must HydroCan do to adopt a diversification strategy? (3 marks)

- Offer a product that is not in the fertilizer product line to a market that is not the home gardener

HydroCan was incorporated nearly one year ago. They have leased their production facilities and have purchased and/or leased all equipment and machinery necessary to produce 10-kilogram bags of StaGreen for the consumer market. The production facility has the capacity to produce 180,000 kilograms of StaGreen per month. Fixed production costs include \$700,000 for equipment and building rental, \$80,000 for general and administrative expenses, \$20,650 for research and development and \$12,350 for miscellaneous items. Distribution costs, including freight, warehousing, and storage are estimated to be \$426,000 per year. The marketing budget has been set at \$555,000 and the four owners of the company will limit their salary to \$30,000 per year for the first 5 years of production. The marketing budget will cover the cost of store displays and advertising. HydroCan has also hired 20 part-time students at an annual cost of \$25,000 per student to push the product through the channel.

Believing they have a superior product that will save end-users time and money, HydroCan has set the price to wholesalers at \$22.50 for a 10-kilogram bag. Variable costs for production are 52% of the sale price. On average, the large discount stores and home improvement stores add a 25% markup on lawn maintenance products and wholesalers add a 15% markup. Because the smaller specialty stores take a larger markup of 35%, HydroCan will not approach this distribution channel until they have strengthened their bargaining position. To encourage product trial, HydroCan is offering end-consumers a \$5.00 instant rebate for the purchase of each 10-kilogram bag of StaGreen.

14. Analyze Hydrocan's cost structure to estimate:

a. The level of production (units) required to break-even. (5 marks)

For Part (a) and Part (b), either of the following solutions is acceptable for full marks. The first solution includes the \$5.00 rebate; the second solution does not include the rebate. The accounting area told me that the rebate would be considered as a reduction in contribution.

Including the \$5.00 rebate as reduction in contribution for StaGreen

Information provided in the case: (No part marks)

- Price paid to StaGreen by the wholesale channel = \$22.50
- Variable costs (VC) are 52% of sale price = $\$22.50 \times .52 = \11.70
- Fixed costs (FC) = \$2,414,000
- Contribution = $\$22.50$ (price) - $\$5.00$ (rebate) - 11.70 (VC) = $\$5.80$
- 1 bag holds 10 kg

$$\text{Break-Even} = \text{FC} / \text{contribution per bag} = \$2,414,000 / \$5.80 = 416,207 \text{ bags} = 4,162,070 \text{ kg}$$

Excluding the \$5.00 rebate as reduction in contribution for StaGreen

Information provided in the case: (No part marks)

- Price paid to StaGreen by the wholesale channel = \$22.50
- Variable costs (VC) are 52% of sale price = $\$22.50 \times .52 = \11.70
- Fixed costs (FC) = \$2,414,000
- Contribution = $\$22.50$ (price) - 11.70 (VC) = $\$10.80$
- 1 bag holds 10 kg

$$\text{Break-Even} = \text{FC} / \text{contribution per bag} = \$2,414,000 / \$10.80 = 223,518 \text{ bags} = 2,235,180 \text{ kg}$$

b. StaGreen's break-even market share (%). (5 marks)

Including the \$5.00 rebate as reduction in contribution for StaGreen

Information provided in the case: (Use students answer for potential market in (a) if necessary)

- Total sales in current market = 190,000,000 kg
- StaGreen BE market share = 4,162,070 kg

$$\text{Break-Even Market Share} = 4,162,070 / 190,000,000 = 2.2\%$$

Excluding the \$5.00 rebate as reduction in contribution for StaGreen

Information provided in the case: (Use students answer for potential market in (a) if necessary)

- Total sales in current market = 190,000,000 kg
- StaGreen BE market share = 2,235,180 kg

$$\text{Break-Even Market Share} = 2,235,180 / 190,000,000 = 1.2\%$$

15. Based on the retail price to the end consumer, is StaGreen's competitive positioning based on penetration pricing, parity pricing or a skimming pricing? Explain. (3 marks)

Either of the following solutions is acceptable for full marks. The first solution includes the \$5.00 rebate; the second solution does not include the rebate.

Assuming Retail price refers to MSRP before \$5.00 rebate

Information provided in the case:

- Price to wholesaler = \$22.50
- Wholesaler adds 15% markup for price to retailer
- Price to retailer = $22.50 \times 1.15 = \$25.88$
- Retailer adds 25% markup for price to customer
- Price to customer = $25.88 \times 1.25 = \$32.35$ per 10 kg bag
- Price to customer = \$3.24 / kg

Skimming – \$3.24 /kg is the highest price in the market on a per kg basis. (See table below)

Assuming Retail price refers to MSRP less \$5.00 rebate

Information provided in the case:

- Price to wholesaler = \$22.50
- Wholesaler adds 15% markup for price to retailer
- Price to retailer = $22.50 \times 1.15 = \$25.88$
- Retailer adds 25% markup for price to customer
- Price to customer before rebate = $25.88 \times 1.25 = \$32.35$ per 10 kg bag
- Price to customer after rebate = $25.88 \times 1.25 = \$32.35 - \$5.00 = \$27.28$ per 10 kg bag
- Price to customer = \$2.73 / kg

Parity – \$2.73 /kg is mid-point among competing brands.

Product Description	Package Size	Package Price	Price (kg)
Scott's Turf Builder	10 kg	\$24.49	\$2.45
Scott's Turf Builder	25 kg	\$58.99	\$2.36
Scott's Turf Builder	5 kg	\$13.99	\$2.80
Miracle-Gro Lawn & Garden	10 kg	\$29.45	\$2.95
Ortho Lawn & Weed	10 kg	\$23.99	\$2.40

16. As chemical-based fertilizers reach the mature stage of the product life cycle, what pricing strategy should HydroCan adopt? Explain. (3 marks).

- Status quo or market bearing. High competition, low margins, no sustainable advantage

17. HydroCan's distribution strategy is to use a conventional channel consisting of wholesalers and retailer outlets. What channel functions could be eliminated if HydroCan decides to adopt a direct channel strategy? (3 marks)

- NONE! All required channel functions must still be performed.
 - NOTE: Retailing is not listed as a channel function and warehousing and storage would still be required to meet fluctuations in demand.

18. As a new entrant in the fertilizer market, StaGreen has little if any brand equity. What is the communication objective for a target market that is in the cognitive stage of the consumer decision making model? (3 marks)

- Cognitive stage – Awareness or knowledge: communication to make consumer aware of my brand and/or make information for decision making easy to find.

19. The objective of a conative communication strategy would be to move StaGreen to what set of the evoked set model? (3 marks)

- The Decision or Choice Set where it is the only brand in the set.

20. Based on an internal/external feasibility analysis, defend a decision to launch or not launch StaGreen fertilizer. (5 marks)

Compare any internal and external elements. Here are the most obvious:

Internal

External

Launch:

New technology to save water and consumers time; Hold Canadian patent;

Large market with lawns and gardens; Growing market as Gen-X & Gen-Y buy houses; Market only 60% penetrated

Have sales force to push the product to discount and home improvement stores

Market preference for discount and home improvement stores

Do Not Launch

New company; no experience in the market;

Very competitive market; Consumers have no brand loyalty

No channel contracts in place

Market relies on expertise of retail agents

High priced unknown boutique product

Well know competitors in market with competitive price points

HAPPY HOLIDAYS