



**KLEMCHUK LP**  
PROTECTING INNOVATION

# FOOD FOR THOUGHT – THE POTENTIAL FOR FOOD PATENTING

BY:  
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# Topics

- Comparison of Patent and Trade Secret Protection
- Pros and Cons of Patent Protection
- Weighing the Factors
- Recent Lawsuits Relating to Food Patenting



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# Intellectual Property

- Products that come from the creative mind
- Includes patents, trademarks, copyrights and trade secrets
- Property that needs to be protected from theft or misuse



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# Patents v. Trade Secrets

- **Patent** – provides an exclusive right to make, use, import, sell and offer for sale invention for up to 20 years
- **Trade secret** – information kept secret to give an advantage over competitors



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# Parts of a Patent

- Background
- Figures/Drawings
- Specification (description of invention)
- Claims (metes and bounds; define the scope of the invention)



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# Trade Secret

- No formal written requirements like a patent
- Information must be used continuously in business
- Must take reasonable precautions to ensure information remains secret



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# What Do You Patent?

- Computer software
- Methods of doing business
- Food and processes for making or manufacturing
- Chemical formulae



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# What Do You Keep as a Trade Secret?

- Manufacturing processes
- Ideas
- Food and methods for making or manufacturing
- Chemical formulae and processes



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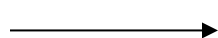
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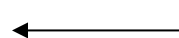


# The Overlap – Patents and Trade Secrets

- New innovations can be protected with patents or trade secrets.
- Cannot usually protect same innovation by both patents and trade secrets.



Patent?  
Trade Secret?  
Both?  
Neither?



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# Disclosure of Invention

- U.S. patent applications publish after 18 months
- If patent application publishes, no longer can keep invention as trade secret
- If likelihood of patentability is low, may choose to keep as trade secret



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# Duration of Protection

Uncertainty of duration may make valuation of trade secret more unpredictable

<b>Patent</b>	<b>Trade Secret</b>
Definite Term	No Definite Term
Limited in Time	As Long as it Remains a Secret



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# Exclusivity of Rights

- Patents – exclusive rights
  - Cannot independently develop but freely use invention protected by a patent; innocent infringement not a defense
- Trade Secrets – non-exclusive rights
  - Can independently develop and not violate a trade secret
  - Trade secret only violated with a breach of a non-disclosure obligation or by obtaining trade secret via improper means



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# Patents v. Trade Secrets – Commercial Life of Product

- Short commercial life (e.g., novelty food items) – patent may not issue until after market life expires
- Longer shelf life (e.g., Starbucks disposable beverage cup lid design) – may be good candidates for patent protection



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# Patents v. Trade Secrets – Tipping Off Competitors

- Patents require significant disclosure – public's right to knowledge in exchange for exclusivity
- May give competitors information to design around invention
- BUT also may stimulate innovation – give competitors ideas to move the technology forward



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# Patents v. Trade Secrets – Type of Subject Matter/ Industry

- More patent activity in certain technology areas
  - Polymer industry – high level of patent activity (more than 6,000 patents/year classified as “synthetic resin” patents)
    - Industry change may be slow; patents likely to be used by industry
  - Food industry – more likely to keep as trade secrets (e.g., processes to make food/beverages) but some patenting also is common (e.g., General Mills; Kraft)



# Patents v. Trade Secrets – Ease of Keeping Subject Matter a Secret

- Where the trade secret is kept (i.e., locked away in a secured place or kept out on manufacturing floor)
- Documentation associated with trade secret (i.e., need a single recipe to produce versus recipe is made in parts)
- People who need to know trade secret (i.e., whole company needs to know to perform business or a few key personnel under confidentiality agreements)





# Patents v. Trade Secrets – Time Needed to Obtain Patent (2007 Stats)

- 760,924 patent applications awaiting action by Examiner (all fields)
- 1,112,517 pending patent applications (all fields)
- First examination by PTO of a food-related patent application likely will not occur until 26.1 months after filing
- Food-related patent application likely will take approximately 34.4 months to issue



# Patents v. Trade Secrets – Economic Considerations

- Patents may give a signal that invention was created
  - Good for future investments, competitive positioning
  - However, absence of patents does not mean invention was not created
- Less upfront investment to maintain invention as trade secret
  - However, loss of trade secret may be financially devastating to company



# Food Technology Patents

- Decaffeinated coffee and tea
  - General Foods Corp. – patent for a carbon dioxide decaffeination process (U.S. Patent 4,820,537)
  - Chocolat Suchard Societe Anonyme – patent for process for decaffeinating raw coffee (U.S. Patent 5,208,056)
  - Uhde GmbH – patent for decaffeinating coffee and tea (U.S. Patent 5,153,015)



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# Food Technology Patents

- Numerous Kraft patents related to processed cheese including:
  - Methods for manufacture of processed cheese
  - Methods and systems for processing cheese
  - Method and apparatus for producing a wrapped food material in single slice form

<b>United States Patent</b> [19]		[11]	<b>4,112,131</b>
<b>Bosy et al.</b>		[45]	<b>Sep. 5, 1978</b>
[54] <b>METHOD FOR MANUFACTURE OF PROCESS CHEESE</b>	[56] <b>References Cited</b>	<b>U.S. PATENT DOCUMENTS</b>	
[75] Inventors: <b>George Bosy, Park Ridge; Edwin N. Edwards, Glenview; Willis M. Hoffbeck, Palatine; Paul A. Silvio, Mount Prospect, all of Ill.; Leonard A. Warwick, Woburn, Mass.</b>	1,639,828 8/1927 Whizler et al. ....	426/511	
	1,796,445 3/1931 Doering et al. ....	99/348 X	
	2,021,899 11/1935 Schneider .....	426/511 X	
	3,704,006 11/1972 Groul et al. ....	259/4 AB	
	3,800,985 4/1974 Groul et al. ....	259/4 AB	
[73] Assignee: <b>Kraft, Inc., Glenview, Ill.</b>	<i>Primary Examiner—Kenneth M. Schor</i> <i>Attorney, Agent, or Firm—Fitch, Even, Tabin &amp; Luedeka</i>		
[21] Appl. No.: <b>766,853</b>	[57] <b>ABSTRACT</b>	A continuous, in-line, method and apparatus for cook-	

<b>United States Patent</b> [19]		[11]	<b>Patent Number: 5,470,595</b>
<b>Kopp et al.</b>		[45]	<b>Date of Patent: Nov. 28, 1995</b>
[54] <b>METHOD AND SYSTEM FOR PROCESSING CHEESE</b>	826227 4/1981 U.S.S.R. ....	426/231	
	WO9102966 3/1991 WIPO .		
[75] Inventors: <b>Gabriele M. Kopp, Munich; Erich Laudenbach, Starnberg; Ahmet Anbarci, Unterhaching, all of Germany</b>	<b>OTHER PUBLICATIONS</b>		
[73] Assignee: <b>Kraft General Foods R&amp;D, Inc., Rye Brook, N.Y.</b>	Brochure titled "Microwave Moisture Analyzer LB 354 Micro-Moist," published by EG & G Berthold, Germany, Sep. 1992.		
[21] Appl. No.: <b>200,120</b>	Database WP1 Week 84.14; Derwent Publ. Ltd., London, AN 84-87433, SO-A-1 024 836 (Altai Buttercheese).		
[22] Filed: <b>Feb. 22, 1994</b>	Database WP1 Week 90.14 1990; Derwent Publ. Ltd., London AN 90-103080 & JP-A 02 053 439 (Snow Brand Milk Products).		



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# McIlhenny Company – Tabasco sauce

- Secured a patent in 1870 for unique formula for processing peppers into a fiery red sauce
- Process and sauce are still highly regarded even though no longer protected by patent



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# Coca-Cola Company – Patents and Trade Secrets

- The Coca-Cola Company owns a patent on a method of making “barrier coated plastic containers”
- Also have trade secrets – formula for Coke is most famous trade secret



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# Coca-Cola Company – Patents and Trade Secrets

- Formula for Coca-Cola
  - Known only to a few people who have signed non-disclosure agreements
  - Kept in the vault of a bank in Atlanta, GA
  - Well-respected trade secret – even by competitors



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# Patents – Not Only for Big Companies

- Class 099 –Food and Beverages: Apparatus
  - Most patents issued from 2002-2006 were to individuals
- Class 426 – Food or Edible Material: Processes, Compositions, and Products
  - Most patents issued from 2002-2006 were to individuals - 410 patents

Nestec, S.A. – 145 patents

Kraft Foods Holdings, Inc. – 94 patents

Procter + Gamble Company – 67 patents

General Mills, Inc. – 61 patents



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# Monsanto – Seed Patents

- Monsanto invests over \$2.6M each day in R&D; mission to enforce patents to ensure level playing field for Monsanto customers
- 138 lawsuits against farmers for seed piracy as of July 2009; successful in 9 suits that have gone to trial
- Monsanto battling lawsuit against duPont related to corn and soybean products; involves patent infringement as well as antitrust claims
- Monsanto has agreed to keep patented product on market after patent expires instead of forcing farmers to buy more expensive patented product



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# *Martek Biosciences v. Nutrinova*

- Patents at issue in 2007 case related to DHA, an essential omega-3 fatty acid; case between competitors
- Trial resulted in invalidation of Martek DHA patent but Nutrinova found to infringe 2 other patents
- Appealed decision and Federal Circuit found in favor of Martek (patent not invalid)
- Not only case Martek has had related to DHA recently – settled another case against Capsugel France in 2009; will jointly develop product and Capsugel agrees to buy algal DHA from Martek



## *Kemin v. OmniActive*

- Lutein patent case – nutrient found in green leafy vegetables and egg yolk; expected to be \$124.5M market by 2013
- Kemin patent directed to process for isolation, purification and recrystallization of lutein from saponified marigold oleoresin and uses
- OmniActive claimed that its product was covered by its own patent while Kemin's product was covered by its patent



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# *Kemin v. OmniActive*

- Key Court Rulings:
  - Agreed with Kemin that “lutein” meant all isomers of lutein, not just trans-lutein
  - Lutein purity - have to consider percentage of lutein against percentage of other carotenoids
  - Make purified lutein with readily available testing method not necessarily best available



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## *Kemin v. OmniActive*

- Lawsuit concluded in November 2009 with settlement
  - OmniActive agreed that Kemin's patent claims were valid and enforceable
  - No admission of liability
  - OmniActive can sell its original formulation outside U.S.
  - OmniActive will convert to new formulation to sell in U.S.



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# Food for Thought – Is Patenting For You?

- Patents
- Trade Secrets
- Published Papers
- Other Collaborative Activity

No single way of conveying innovation is perfect for all situations.



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