United States Court of Appeals for the Federal Circuit

02-1031

IN RE CRUCIFEROUS SPROUT LITIGATION

BRASSICA PROTECTION PRODUCTS LLC and JOHNS HOPKINS UNIVERSITY,

Plaintiffs-Appellants,

v.

SUNRISE FARMS, BECKY CRIKELAIR, and FRANK CRIKELAIR,

Defendants-Appellees,

and

EDRICH FARMS INC., EDWARD B. STANFIELD, III,
EDWARD F. STANFIELD, JR., RICHARD STANFIELD, and SALLY F. STANFIELD,

Defendants-Appellees,

and

BANNER MOUNTAIN SPROUTS,
BANNER MOUNTAIN SPROUTS INC., and LAWRENCE RAVITZ,

Defendants-Appellees,

and

HARMONY FARMS, GREG LYNN, and LORNA LYNN,

and

INTERNATIONAL SPECIALTY SUPPLY and ROBERT L. RUST,

Defendants-Appellees.

E. Anthony Figg, Rothwell, Figg, Ernst & Manbeck, P.C., of Washington, DC, argued for plaintiffs-appellants. With him on the brief were Joseph A. Hynds and Mark I. Bowditch.

Joseph A. Kromholz, Ryan, Kromholz & Manion, of Milwaukee, Wisconsin, argued for defendants-appellees. With him on the brief for defendants-appellees

Sunrise Farms, et al. was Daniel R. Johnson. On the brief for defendants-appellees Harmony Farms, et al. was Delbert J. Barnard, Barnard & Pauly, P.S. On the brief for defendants-appellees Edrich Farms Inc., et al. was Philip M. Andrews, Kramon & Graham, P.A., of Baltimore, Maryland. On the brief for defendants-appellees Banner Mountain Sprouts, et al. was Donald W. Ullrich, Jr., The Ullrich Law Firm, of Sacramento, California.

Appealed from: United States District Court for the District of Maryland

Judge William M. Nickerson

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Defendants-Appellees.

DECIDED: August 21, 2002

Before CLEVENGER, BRYSON, and PROST, Circuit Judges.

PROST, Circuit Judge.

Brassica Protection Products LLC and Johns Hopkins University (collectively "Brassica") appeal from the decision of the United States District Court for the District of Maryland granting summary judgment that U.S. Patent Nos. 5,725,895 ("the '895 patent"), 5,968,567 ("the '567 patent"), and 5,968,505 ("the '505 patent") are invalid as anticipated by the prior art. In re Cruciferous Sprout Patent Litig., 168 F. Supp. 2d 534, 60 USPQ2d 1758 (D. Md. 2001). We affirm the district court's ruling.

BACKGROUND

The three patents-in-suit relate to growing and eating sprouts to reduce the level of carcinogens in animals, thereby reducing the risk of developing cancer. Specifically, the patents describe methods of preparing food products that contain high levels of substances that induce Phase 2 enzymes. These enzymes are part of the human body's mechanism for detoxifying potential carcinogens. Thus, they have a chemoprotective effect against cancer. '895 patent, col. 1, ll. 28-34. Foods that are rich in glucosinolates, such as certain cruciferous sprouts, have high Phase 2 enzyme-inducing potential. The inventors of the patents-in-suit recognized that the Phase 2 enzyme-inducing agents (or their glucosinolate precursors) are far more concentrated in certain sprouts (such as broccoli and cauliflower but not cabbage, cress, mustard or radish) that are harvested before the two-leaf stage than in corresponding adult plants. Id. at col. 7, l. 63 – col. 8, l. 14. However, glucosinolate levels in cruciferous plants can

be highly variable. See id. at col. 12, ll. 66-67 ("There is variation in inducer potential among different broccoli cultivars."). According to the inventors, it is therefore desirable to select the seeds of those cruciferous plants which, when germinated and harvested before the two-leaf stage, produce sprouts that contain high levels of the desired enzyme-inducing potential.

The '895 patent was filed on September 15, 1995, and claims, inter alia, "A method of preparing a food product rich in glucosinolates, comprising germinated cruciferous seeds, with the exception of cabbage, cress, mustard and radish seeds, and harvesting sprouts prior to the 2-leaf stage, to form a food product comprising a plurality of sprouts." '895 patent, claim 1. The '567 patent is a continuation of the '895 application and it claims a "method of preparing a human food product" from sprouts. '567 patent, claims 1 and 9. The '505 patent is a divisional of the '895 application and it claims a "method of increasing the chemoprotective amount of Phase 2 enzymes in a mammal," as well as a "method of reducing the level of carcinogens in a mammal," by creating a "food product" from sprouts and then "administering said food product" to a mammal. '505 patent, claims 1 and 16.

The three patents-in-suit are owned by Johns Hopkins University and exclusively licensed to Brassica Protection Products LLC. Johns Hopkins and Brassica sued Sunrise Farms, Becky Crikelair, Frank Crikelair, Edrich Farms, Inc., Edward B. Stanfield, III, Edward F. Stanfield, Jr., Richard Stanfield, Sally F. Stanfield, Banner Mountain Sprouts, Banner Mountain Sprouts, Inc., Lawrence Ravitz, Harmony Farms, International Specialty Supply, Greg Lynn, Lorna Lynn and Robert L. Rust (collectively "defendants") in various district courts. Pursuant to 28 U.S.C. § 1407, the Judicial Panel on Multidistrict Litigation consolidated the various cases in the District of Maryland for

pretrial proceedings. On June 7, 2001, the defendants filed a joint motion for partial summary judgment of invalidity, arguing that the patents were anticipated by prior art references disclosing growing and eating sprouts. Brassica filed a cross-motion for summary judgment that the patents are not invalid. On July 23, 2001, the district court held a Markman hearing to address claim construction issues and the parties' motions for summary judgment.

On August 10, 2001, the court granted defendants' motion for summary judgment of invalidity and denied Brassica's cross-motion for summary judgment. According to the district court, "[t]he record before the Court makes it abundantly clear that, prior to the issuance of the patents-in-suit, one skilled in the art could, by following the teachings of the prior art, germinate broccoli seeds, harvest the sprouts, and sell them as a food product." In re Cruciferous Sprout Patent Litig., 168 F. Supp. 2d at 540, 60 USPQ2d at 1762. While recognizing that the inventors of the patents-in-suit may have discovered a new and significant property of certain types of cruciferous sprouts, the district court concluded that "merely describing unexpected beneficial results of a known process does not entitle Plaintiffs to patent that process." Id. at 538, 60 USPQ2d at 1760. Thus, a "plant (broccoli sprouts), long well known in nature and cultivated and eaten by humans for decades, [cannot] be patented merely on the basis of a recent realization that the plant has always had some heretofore unknown but naturally occurring beneficial feature." Id. at 537, 60 USPQ2d at 1759. On October 1, 2001, the court entered a Judgment Under Rule 54(b) in favor of defendants but limited its invalidity ruling to claims 1-6 and 9 of the '895 patent, claims 1-8 of the '567 patent, and claims 1 and 16 of the '505 patent. In re Cruciferous Sprout Patent Litig., MDL Docket No. 1388 (D. Md. Oct. 1, 2001) (Rule 54(b) Determination). Brassica appeals the

judgment of invalidity, arguing that the district court failed to properly construe the claims and did not apply the properly construed claims to the prior art when determining that the claims are anticipated under 35 U.S.C. § 102(b). We have jurisdiction under 28 U.S.C. § 1295 (a)(1).

DISCUSSION

This court reviews a grant of summary judgment de novo, drawing all reasonable factual inferences in favor of the non-moving party. See, e.g., Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986). Summary judgment is appropriate when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Id. at 247-48. Anticipation is a question of fact, Gen. Elec. Co. v. Nintendo Co., 179 F.3d 1350, 1353, 50 USPQ2d 1910, 1912 (Fed. Cir. 1999), and is determined by first construing the claims and then comparing the properly construed claims to the prior art, Gechter v. Davidson, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). Claim construction is an issue of law that we review de novo. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456, 46 USPQ2d 1169, 1174 (Fed. Cir. 1998) (en banc). We also determine de novo whether the evidence in the record raises any genuine disputes about material facts. Gen. Elec., 179 F.3d at 1353, 50 USPQ2d at 1912.

I.

Brassica contends that the district court erroneously construed the claims by failing to treat the preamble of claim 1 of the '895 patent as a limitation of the claims. In addition, Brassica argues that the district court failed to construe the limitations "rich in glucosinolates" (appearing in claims 1 and 9 of the '895 patent) and "high Phase 2

enzyme-inducing potential" (appearing in claim 1 of the '567 patent and claims 1 and 16 of the '505 patent).

No litmus test defines when a preamble limits claim scope. Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). Whether to treat a preamble as a limitation is a determination "resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." Id.; Catalina Mktg. Int'l v. Coolsavings.com, Inc., 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002). In general, a preamble limits the claimed invention if it recites essential structure or steps, or if it is "necessary to give life, meaning, and vitality" to the claim. Catalina Mktg., 289 F.3d at 808, 62 USPQ2d at 1784 (quoting Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999)). Clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art may indicate that the preamble is a claim limitation because the preamble is used to define the claimed invention. Catalina Mktg., 289 F.3d at 808, 62 USPQ2d at 1785; Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc., 246 F.3d 1368, 1375, 58 USPQ2d 1508, 1513 (Fed. Cir. 2001).

In this case, both the specification and prosecution history indicate that the phrase "rich in glucosinolates" helps to define the claimed invention and is, therefore, a limitation of claim 1 of the '895 patent. The specification, for example, states that "this invention relates to the production and consumption of foods which are rich in cancer chemoprotective compounds." '895 patent, col. 1, ll. 18-19. A stated object of the invention is "to provide food products and food additives that are rich in cancer chemoprotective compounds." Id. at col. 2, ll. 38-39. The specification therefore

indicates that the inventors believed their invention to be making food products that are rich in chemoprotective compounds, or, in other words, food products "rich in glucosinolates."[1] In addition, during reexamination[2] of the '895 patent the patentee argued as follows:

> Claim 1 of the patent, for example, is directed to "[a] method of preparing a food product rich in glucosinolates, . . . and harvesting sprouts prior to the 2-leaf stage, to form a food product comprising a plurality of sprouts." . . . Although "rich in glucosinolates" is recited in the preamble of the claim, the pertinent case law holds that the preamble is given weight if it breathes life and meaning into the claim. . . . Accordingly, the cited prior art does not anticipate the claims because it does not explicitly teach a method of preparing a food product comprising cruciferous sprouts that are rich in glucosinolates or contain high levels of Phase 2 inducer activity.

This language shows a clear reliance by the patentee on the preamble to persuade the Patent Office that the claimed invention is not anticipated by the prior art. As such, the preamble is a limitation of the claims. See Bristol-Myers Squibb, 246 F.3d at 1375, 58 USPQ2d at 1513.

Brassica also asks this court to construe the phrases "rich in glucosinolates" and "high Phase 2 enzyme-inducing potential" to require "at least 200,000 units per gram

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[1] Phase 2 enzymes are part of the human body's mechanism for detoxifying potential carcinogens. These enzymes therefore have a chemoprotective effect against cancer. According to the '895 patent, "most of the [Phase 2 enzyme] inducer potential of crucifer plants is due to their content of isothiocyanates and their biogenic precursors, glucosinolates." '895 patent, col. 8, ll. 14-16.

[2] On December 6, 1999, the Patent Office granted a request for reexamination of the '895 patent. Claims 1-6 and 9-13 were rejected as anticipated by or obvious in light of many of the same prior art references relied on by the defendants in this case. After considering the patentee's arguments and declarations in support of patentability, the Patent Office issued a reexamination certificate and gave the following examiner's statement of reasons for patentability: "a method of preparing a food product wherein cruciferous sprouts, with the exception of cabbage, cress, mustard, and radish sprouts, that are rich in glucosinolates or contain high levels of phase 2 inducer activity are harvested prior to the 2-leaf stage is not taught or fairly suggested by the prior art or any combination thereof."

fresh weight of Phase 2 enzyme-inducing potential at 3-days following incubation under conditions in which cruciferous seeds germinate and grow." '895 patent, col. 7, ll. 47-53.

"[T]he words of a claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor." Carroll Touch, Inc. v. Electro Mech. Sys., Inc., 15 F.3d 1573, 1577, 27 USPQ2d 1836, 1840 (Fed. Cir. 1993). However, "limitations appearing in the specification will not be read into claims, and . . . interpreting what is *meant* by a word *in* a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.'" Intervet Am., Inc. v. Kee-Vet Labs., Inc., 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989). Brassica's proposed construction violates this rule by improperly importing limitations from the specification into the claims. True, the specification states that "[s]uitable sprouts will have at least 200,000 units per gram of fresh weight of Phase 2 enzyme-inducing potential following 3-days incubation of seeds under conditions in which the seeds germinate and grow." '895 patent, col. 10, l. 66 – col. 11, l. 2. The specification does not, however, indicate that the phrases "rich in glucosinolates" or "high in Phase 2 enzyme-inducing potential" are limited to these precise conditions. Rather, the specification uses the term "high" in its ordinary, comparative sense to mean "not low". For example, the specification states that "[t]he cruciferous sprouts of the instant invention have higher Phase 2 enzyme-inducer potential than market stage plants," id. at col. 14, ll. 5-7, and the "Phase 2 enzyme-inducing potential of such sprouts may be as much as several hundred times higher than that observed in adult, market stage vegetables obtained from the same seeds," id. at col. 8, ll. 6-9; see also Innovad Inc. v. Microsoft Corp., 260 F.3d 1326,

1332, 59 USPQ2d 1676, 1680 (Fed. Cir. 2001) (construing the term "small volume" based in part on the specification's use of the phrase in its general sense to mean "not large"). Likewise, the term "rich" is not specifically defined or limited by the specification, but instead is used in its ordinary, relative sense. See, e.g., id. at col. 11, ll. 15-17 ("Mature Brussels sprouts and rapeseed are rich in these undesirable glucosinolates."); col. 11, ll. 37-39 ("Seeds, as well as sprouts have been found to be extremely rich in inducer potential.").

Brassica's proposed construction is also inconsistent with the language of the dependent claims. Claim 19 of the '567 patent recites: "The method according to claim 1, wherein said seeds produce cruciferous sprouts containing at least 200,000 units per gram fresh weight of Phase 2 enzyme-inducing potential measured after 3-days of growth." '567 patent, col. 22, ll. 62-65. Brassica's proposed construction would render this claim meaningless. See Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187, 48 USPQ2d 1001, 1005-06 (Fed. Cir. 1998) (finding a violation of the doctrine of claim differentiation when a proposed construction would render another claim superfluous). We therefore reject Brassica's proposed claim construction for the phrases "rich in glucosinolates" and "high in Phase 2 enzyme-inducing potential."

II.

Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims. In order to prove that a claim is anticipated under 35 U.S.C. § 102(b), defendants must present clear and convincing evidence that a single prior art reference discloses, either expressly or

inherently, each limitation of the claim. Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992).

Brassica argues that the prior art does not expressly or inherently disclose the claim limitations of "preparing a food product rich in glucosinolates" (claims 1 and 9 of the '895 patent), or "identifying seeds which produce cruciferous sprouts . . . containing high Phase 2 enzyme-inducing potential" (claims 1 and 16 of the '505 patent, claim 1 of the '567 patent). According to Brassica, the prior art merely discusses growing and eating sprouts without mention of any glucosinolates or Phase 2 enzyme-inducing potential, and without specifying that particular sprouts having these beneficial characteristics should be assembled into a "food product."[3] Moreover, Brassica argues, the prior art does not inherently disclose these limitations because "at most, one following the prior art would have a possibility or probability of producing a food product high in Phase 2 enzyme-inducing potential" and the "fact that one following the prior art might have selected seeds meeting the limitations of the claims is not sufficient to establish inherent anticipation."

It is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it. See, e.g., Atlas Powder Co. v. IRECO Inc., 190 F.3d 1342, 51 USPQ2d 1943 (Fed. Cir. 1999); Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). "Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates." MEHL/Biophile Int'l Corp. v. Milgraum, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999) (finding

[3] "A food product is any ingestible preparation containing the sprouts of the instant invention, or extracts or preparations made from these sprouts . . . ." '895 patent, col. 6, ll. 26-28.

anticipation of a method of hair depilation by an article teaching a method of skin treatment but recognizing the disruption of hair follicles, citing In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986)). "Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art." MEHL/Biophile, 192 F.3d at 1365, 52 USPQ2d at 1305-06; Atlas Powder, 190 F.3d at 1347, 51 USPQ2d at 1946-47.

Brassica does not claim to have invented a new kind of sprout, or a new way of growing or harvesting sprouts. Rather, Brassica recognized that some sprouts are rich in glucosinolates and high in Phase 2 enzyme-inducing activity while other sprouts are not. See '895 patent, col. 10, ll. 28-42 ("Sprouts suitable as sources of cancer chemoprotectants are generally cruciferous sprouts, with the exception of cabbage (Brassica olecracea capitata), cress (Lepidiumsativum), mustard (Sinapis alba and S. niger) and radish (Raphanus sativus) sprouts."). But the glucosinolate content and Phase 2 enzyme-inducing potential of sprouts necessarily have existed as long as sprouts themselves, which is certainly more than one year before the date of application at issue here. See, e.g., Karen Cross Whyte, The Complete Sprouting Cookbook 4 (1973) (noting that in "2939 B.C., the Emperor of China recorded the use of health giving sprouts"). Stated differently, a sprout's glucosinolate content and Phase 2 enzyme-inducing potential are inherent characteristics of the sprout. Cf. Brian R. Clement, Hippocrates Health Program 8 (1989) (referring to "[i]nherent enzyme inhibitors, phytates (natural insecticides), oxalates, etc., present in every seed"). It matters not that those of ordinary skill heretofore may not have recognized these

inherent characteristics of the sprouts. MEHL/Biophile, 192 F.3d at 1365, 52 USPQ2d at 1305.

Titanium Metals Corp. v. Banner is particularly instructive in this regard. In that case, the claim at issue recited:

> A titanium base alloy consisting essentially by weight of about 0.6% to 0.9% nickel, 0.2% to 0.4% molybdenum, up to 0.2% maximum iron, balance titanium, said alloy being characterized by good corrosion resistance in hot brine environments.

Titanium Metals, 778 F.2d at 776, 227 USPQ at 774. The prior art disclosed a titanium base alloy having the recited components of the claim, but the prior art did not disclose that such an alloy was "characterized by good corrosion resistance in hot brine environments." We nevertheless held that the claim was anticipated by the prior art, because "it is immaterial, on the issue of their novelty, what inherent properties the alloys have or whether these applicants discovered certain inherent properties." Id. at 782, 227 USPQ at 779. Titanium Metals explained the rationale behind this common sense conclusion:

> The basic provision of Title 35 applicable here is § 101, providing in relevant part: "Whoever invents or discovers any *new* . . . composition of matter, or any *new*. . . improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."
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> . . . .
>
> . . . [C]ounsel never came to grips with the real issues: (1) what do the claims cover and (2) is what they cover new? Under the laws Congress wrote, they must be considered. Congress has not seen fit to permit the patenting of an old alloy, known to others through a printed publication, by one who has discovered its corrosion resistance or other useful properties, or has found out to what extent one can modify the composition of the alloy without losing such properties.

Id. at 780, 782, 227 USPQ at 777-78. Brassica has done nothing more than recognize properties inherent in certain prior art sprouts, just like the corrosion resistance

properties inherent to the prior art alloy in Titanium Metals.[4] While Brassica may have recognized something quite interesting about those sprouts, it simply has not invented anything new.

Brassica nevertheless argues that its claims are not anticipated because the prior art does not disclose selecting the particular seeds that will germinate as sprouts rich in glucosinolates and high in Phase 2 enzyme-inducing potential (as opposed to selecting other kinds of seeds to sprout) in order to form a food product. We disagree. The prior art teaches sprouting and harvesting the very same seeds that the patents recognize as producing sprouts rich in glucosinolates and having high Phase 2 enzyme-inducing potential. According to the patents, examples of suitable sprouts are

> typically from the family Cruciferea, of the tribe Brassiceae, and of the subtribe Brassicinae. Preferably the sprouts are Brassica oleracea selected from the group of varieties consisting of acephala (kale, collards, wild cabbage, curly kale), medullosa (marrowstem kale), ramosa (thousand head kale), alboglabra (Chinese kale), botrytis (cauliflower, sprouting broccoli), costata (Portugese kale), gemmifera (Brussels sprouts), gongylodes (kohlrabi), italica (broccoli), palmifolia (Jersey kale), sabauda (savoy cabbage), sabellica (collards), and selensia (borecole), among others.

'895 patent, col. 10, ll. 32-42. Numerous prior art references identify these same sprouts as suitable for eating. See, e.g., Stephen Facciola, Cornucopia: A Source Book of Edible Plants 47 (1990) (listing "Brassica oleracea Botrytis Group – Cauliflower . . . Sprouted seeds are eaten"), Esther Munroe, Sprouts to Grow and Eat 9-14 (1974) (identifying "Broccoli, Brussels sprouts, Cabbage, Cauliflower, Collards and Kale").

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[4] Most of the claims at issue are method claims, not composition or product claims. Nevertheless, the principles of Titanium Metals still apply. See, e.g., MEHL/Biophile, 192 F.3d at 1366-67, 52 USPQ2d at 1306 (finding anticipation by inherency of a method of hair depilation); Bristol-Myers, 246 F.3d at 1376, 58 USPQ2d at 1514 (Fed. Cir. 2001) (stating that "[n]ewly discovered results of known processes directed to the same purpose are not patentable because such results are inherent").

These references therefore meet the claim limitation of identifying seeds to use in order to have sprouts with the inherent properties of glucosinolates and high Phase 2 enzyme-inducing activity. Despite the patents' admissions about the suitability of particular plant species found in these prior art references, Brassica argues that only specific cultivars of these plant species are rich in glucosinolates and high in Phase 2 enzyme-inducing activity. Thus, according to Brassica, the prior art fails to meet the "identifying" steps of the claims because it does not specify which cultivars should be sprouted. However, all of the appropriate cultivars that are identified in Brassica's patent are in the public domain. '895 patent, col. 10, ll. 43-65. Brassica cannot credibly maintain that no one has heretofore grown and eaten one of the many suitable cultivars identified by its patents. It is unnecessary for purposes of anticipation for the persons sprouting these particular cultivars to have realized that they were sprouting something rich in glucosinolates and high in Phase 2 enzyme-inducing potential. Atlas Powder, 190 F.3d at 1348, 51 USPQ2d at 1947 ("The public remains free to make, use, or sell prior art compositions or processes, regardless of whether or not they understand their complete makeup of the underlying scientific principles which allow them to operate.").

The prior art also discloses the remaining limitations of the claims. The Munroe reference, for example, recommends that sprouts be harvested between "3 to 5 days for a sprouted length of ½ to 1 inch." Munroe at 9. Photographs of these sprouts show that they have not yet reached the two-leaf stage of development. Id. at 10-13. Thus, this reference discloses the claim limitations of germinating the appropriate cruciferous seeds and harvesting the resulting sprouts prior to the 2-leaf stage. See '895 patent, claims 1 and 9; '567 patent, claims 1 and 2; '505 patent, claims 1 and 16. Munroe also discloses that these particular sprouts can be used in food products such as "soups,

salads and main dishes," id. at p. 14, thereby meeting the claim limitation of forming a food product comprising a plurality of the sprouts ('895 patent claims 1 and 9; '567 patent, claims 1 and 8; '505 patent, claims 1 and 16) and the claim limitation of administering (eating) the food product ('505 patent, claims 1 and 16). The Munroe reference therefore discloses each and every limitation of these claims of the patents. See also, Meyerowitz, Growing Vegetables Indoors (1990).

In summary, the prior art inherently contains the claim limitations that Brassica relies upon to distinguish its claims from the prior art. While Brassica may have recognized something about sprouts that was not known before, Brassica's claims do not describe a new method.

CONCLUSION

For the foregoing reasons, we affirm the district court's summary judgment that the claims at issue are anticipated by the prior art. The prior art indisputably includes growing, harvesting and eating particular sprouts which Brassica has recognized as being rich in glucosinolates and high in Phase 2 enzyme-inducing potential. But the glucosinolate content and Phase 2 enzyme-inducing potential of these sprouts are inherent properties of the sprouts put there by nature, not by Brassica. Brassica simply has not claimed anything that is new and its claims are therefore invalid.

AFFIRMED