

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAULUS S. R. KOSTER

Appeal No. 1998-2047
Application No. 08/400,559

ON BRIEF

Before WILLIAM F. SMITH, ADAMS, and GRIMES, Administrative Patent Judges.

GRIMES, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 26, 29, 30, and 33, all of the claims pending in the application.

Claims 26 and 33 are representative of the claimed invention and read as follows:

26. A method of controlling Sclerotium cepivorum infestation in allium plants which comprises applying to allium seeds a seed dressing formulation containing about 0.5 g to 8.0 g of cyproconazole per kg of seed.

33. A treated allium seed comprising:

a) an allium seed and

b) a coating on said seed for the control of Sclerotium cepivorum infection in allium plants wherein said coating includes about 0.5 g to 8.0 g of cyproconazole per kg of seed.

The examiner relies on the following references:

Schaub	4,849,439	Jul. 18, 1989
Smith et al. (Smith)	4,996,157	Feb. 26, 1991
Clough et al. (Clough)	5,124,329	Jun. 23, 1992

Wilson et al., (Wilson), "The Fungi: II," Botany, Ch. 24, pp. 433-434 (1962).

Chemical Abstract 106:151483t; abstracting Gisi et al., "SAN 619, a new triazole fungicide," Proc. Brit. Crop Protection Conference Pests and Disease, Vol. 1, pp 33-40 (1986).

Kerse, et al. (CABA Abstracts 92:131620), "Cyproconazole – a new DMI fungicide," Proc. 42nd N.Z. Weed and Pest Control Conf., pp. 114-118 (1989).

"The Agrochemicals Handbook , "3rd ed., "p. A1032 (1991).

This merits panel also relies on the following references of record:

Coley-Smith et al. (Coley-Smith), "Possibilities for biological and integrated control of white rot disease of Allium," Proc. 1981 British Crop Protection Conf. – Pests and Diseases, No. 2, pp. 459-466 (1981).

Gisi et al. (Gisi), SAN 619 F, "a new triazole fungicide," Proc. 1986 Brit. Crop Protection Conf. – Pests and Diseases, No. 1, pp. 33-40 (1986).¹

Claims 26, 29, 30, and 33 stand rejected under 35 U.S.C. § 103 over the combined teachings of Chemical Abstracts 106:151483t, CABA Abstract 92:131260, Schaub, Clough, The Agrochemicals Handbook, Wilson, and Smith.

We reverse and enter a new ground of rejection under 37 CFR § 1.196(b).

Background

The specification states that allium plants include garlic, leeks, and onions. Page 1. The specification also states that “[o]nion plants are known to be particularly prone to infestation by Sclerotium cepivorum (onion white rot),” a fungus that is difficult to treat and eradicate. Id. The specification discloses that treatment of allium plants or seeds with known triazole fungicides is effective for controlling S. cepivorum infestation. Page 2.

Discussion

Claims 26, 29, and 30 are directed to a method of controlling Sclerotium cepivorum infestation by treating allium seeds with the triazole fungicide cyproconazole at a rate of 0.5 g to 8.0 g cyproconazole per kilogram of seed. Claim 33 is directed to allium seeds so treated with cyproconazole.

The examiner rejected all of the claims as obvious over a combination of seven prior art references. According to the examiner, the references in combination disclose that cyproconazole was known to be effective against fungal diseases caused by Sclerotium, that coating seeds with fungicides was

¹ The examiner relied on the abstract of Gisi (Chemical Abstracts 106:151483t). We rely on the full text of the reference.

known, and that S. cepivorum was known soil-borne plant pathogen. The examiner also relied on the specification's admission that S. cepivorum was known to infect onions. The examiner concluded that the prior art would have motivated the skilled artisan to practice the claimed invention with a reasonable expectation of success.

"It is well-established that before a conclusion of obviousness may be made based on a combination of references, there must have been a reason, suggestion, or motivation to lead an inventor to combine those references."

Pro-Mold & Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Here, the examiner has concluded that it would have been obvious to modify the prior art methods by applying cyproconazole to allium seeds rather than to allium plants. The examiner found motivation to so modify the prior art to be provided by Smith, who teaches that S. cepivorum is an "important soil-borne pathogen." We do not agree that Smith would have motivated those skilled in the art to treat allium seeds with cyproconazole. While Smith teaches that S. cepivorum is a known plant pathogen, she does not identify onions or other

allium plants as susceptible to S. cepivorum. Therefore, Smith would not have motivated a person of ordinary skill in the art to practice the method defined by the claims; i.e., to apply cyproconazole to allium seeds specifically.

The examiner also found a source of motivation in Appellant's specification, which discloses that "[o]nion plants are known to be particularly prone to infestation by Sclerotium cepivorum (onion white rot)." It was not unreasonable for the examiner to construe this passage as an admission regarding prior art knowledge. An applicant's admissions regarding what is within the prior art can be relied on in an obviousness analysis. See Constant v. Advanced Micro-Devices Inc., 848 F.2d 1560, 1570, 7 USPQ2d 1057, 1063 (Fed. Cir. 1988) ("A statement in a patent that something is in the prior art is binding on the applicant and patentee for determinations of anticipation and obviousness."); In re Nomiya, 509 F.2d 566, 570-71, 184 USPQ 607, 611 (CCPA 1975) (Information that an applicant admits is in the prior art "may be considered 'prior art' for any purpose, including use as evidence of obviousness under § 103.").

However, the prior art of record in this case provides explicit motivation to apply cyproconazole to onion seeds. We believe the better examination practice is to rely on the prior art itself, whenever possible, rather than an applicant's admissions concerning the prior art. We therefore reverse the § 103 rejection of record in favor of the rejection set forth below.

New Ground of Rejection

Under the provisions of 37 CFR § 1.196(b), we make the following new ground of rejection: Claims 26, 29, 30, and 33 are rejected under 35 U.S.C. § 103 as being obvious over Schaub in view of Gisi and Coley-Smith.

Claim 26 is directed to a method of preventing fungal infection of allium plants by S. cepivorum by treating allium (e.g., onion) seeds with the fungicide cyproconazole at a rate of 0.5 g to 8.0 g cyproconazole per kilogram of seed. Claim 29 specifies that the allium seeds are onion seeds. Claim 30 adds a requirement that the cyproconazole is applied in combination with an agriculturally acceptable diluent. Claim 33 is directed to the seed produced by the method of claim 26.

Schaub teaches cyproconazole (col. 8, lines 1-50), which is disclosed to be useful as a fungicide for combatting phytopathogenic fungi (col. 5, lines 30-35). Schaub teaches that cyproconazole is useful against a variety of fungal agents (col. 5, lines 35-60) and on a variety of crop plants (col. 6, lines 22-30). Schaub also teaches that cyproconazole can be applied as a seed dressing (col. 5, lines 64-68) in an amount of, e.g., 0.5 g cyproconazole per kilogram of seeds (col. 6, lines 15-20). Finally, Schaub teaches that a seed dressing formulation of cyproconazole may include diluents such as spindle oil and talcum (col. 7, lines 55-65). Schaub does not teach application of cyproconazole to onion or other allium seeds.

Coley-Smith teaches that onion plants are susceptible to infection with the soil fungus S. cepivorum, which causes white rot disease (page 459). Coley-Smith teaches that S. cepivorum infection of onion can be prevented by treating onion seeds with the fungicide iprodione (“Little infection of roots was observed with iprodione-treated seeds,” page 462). Coley-Smith also suggests that other fungicides should be tested for activity against S. cepivorum (“a search should be made amongst existing fungicides for materials with similar or perhaps even greater effects,” page 465).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to treat onion seeds, as taught by Coley-Smith, with a seed dressing comprising cyproconazole (at a rate of 0.5 g per kilogram of seeds) and an agriculturally acceptable diluent, as taught by Schaub (col. 6, lines 15-20; col. 7, lines 55-65), in order to prevent or minimize the infection of the germinated seeds by S. cepivorum. Motivation to combine the references is provided by Coley-Smith, who explicitly suggests that the disclosed method should be practiced with fungicides other than iprodione (page 465) and by Schaub, who teaches that cyproconazole is effective against a variety of phytopathogenic fungi (col. 5, lines 35-60).

The skilled artisan would reasonably have expected that cyproconazole would be effective against S. cepivorum in view of Schaub’s teaching that cyproconazole is effective against a variety of phytopathogenic fungi (col. 5, lines 35-60). An additional basis for expecting successful treatment of S. cepivorum is

provided by Gisi, who teaches that cyproconazole is especially effective against fungi of the genus Sclerotium. See page 34 (“The highest control levels were achieved against . . . all rusts and other Basidiomycetes like . . . Sclerotium.”).

Appellant has argued that the prior art would not have led a skilled artisan to expect that treating allium seeds with cyproconazole would be an effective treatment against S. cepivorum infestation. See pages 11-12 of the Appeal Brief. Appellant’s basic position is that effectiveness of cyproconazole against S. cepivorum, and the phytotoxic effect of cyproconazole on the treated plants, could only be assessed “empirically, by experimentation, the results of which, in the face of the cited documents, are unpredictable.” Appeal Brief, page 11.

This argument is unpersuasive. “Obviousness does not require absolute predictability of success. . . . For obviousness under § 103, all that is required is a reasonable expectation of success.” In re O’Farrell, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988). The prior art teachings (1) that S. cepivorum could be treated effectively with a known antifungal compound and (2) that cyproconazole was effective against a variety of fungi, and especially effective against Sclerotium, would have provided a skilled artisan with a reasonable expectation that cyproconazole would be effective against S. cepivorum.

Appellant has also submitted declaratory evidence which is asserted to show unexpected results. Specifically, Appellant submitted a declaration under 37 CFR § 1.132 by Ulrich Gisi. See Paper No. 27. In his declaration, Dr. Gisi

presented data showing the efficacy of cyproconazole treatment of onion seeds in controlling S. cepivorum infection. Cyproconazole was compared to six other fungicides at four different concentrations: 0.1, 1, 10, and 100 grams of active ingredient per 100 kilograms of seed. See ¶ 5. These concentrations correspond to 0.001, 0.01, 0.1, and 1 gram of active ingredient per kilogram of seed. Since the instant claims recite treatment with 0.5 to 8.0 grams of cyproconazole per kilogram of seed, only the highest concentration tested by Dr. Gisi falls within the scope of the instant claims.²

Dr. Gisi's data show that at a concentration of 100 grams of active ingredient per 100 kilograms of seed, all of the compounds tested showed 100% fungicidal control of S. cepivorum. See Table 1. Thus, the declaratory evidence shows that cyproconazole, used as recited in the instant claims, is no more effective against S. cepivorum than other fungicides. The Gisi declaration therefore does not show any unexpected results for the claimed invention.

Summary

We reverse the rejection for obviousness and enter a new ground of rejection based on two of the references cited by the examiner, in combination with a reference of record which provides ample motivation to practice the claimed method and make the claimed product.

² We decline to consider the declaratory evidence as it relates to embodiments outside the scope of the claims. See *In re Fenn*, 639 F.2d 762, 765, 208 USPQ 470, 472 (CCPA 1981) ("Although it is well settled that comparative test data showing an unexpected result will rebut a prima facie case of obviousness, the comparative testing must be between the claimed invention and the closest prior art." (emphasis added)).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

TIME PERIOD FOR RESPONSE

37 CFR § 1.196(b) also provides that the appellant(s), WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Appeal No. 1998-2047
Application No. 08/400,559

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED
37 CFR § 1.196(b)

WILLIAM F. SMITH)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
DONALD E. ADAMS)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
ERIC GRIMES)	
Administrative Patent Judge)	

Appeal No. 1998-2047
Application No. 08/400,559

MR. MICHAEL P. MORRIS, ESQ.
NOVARTIS CORPORATION
PATENT AND TRADEMARK DEPARTMENT
564 MORRIS AVENUE
SUMMIT, NJ 07901

EG/jlb