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**Intellectual Property: The Overlap Between Utility
Patents, Plant Patents, the PVPA, and Trade
Secrets and the Limitations on that Overlap**

by

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INTELLECTUAL PROPERTY: THE OVERLAP BETWEEN UTILITY PATENTS, PLANT PATENTS, THE PVPA, AND TRADE SECRETS AND THE LIMITATIONS ON THAT OVERLAP

I. INTRODUCTION

As industries become more technologically advanced, the research investments and capital expenditures necessary to develop and produce products similarly increase.¹ To protect these financial outlays and thereby promote future technological advancement, individuals and companies have increasingly relied upon intellectual property rights.² As intellectual property rights have become increasingly important, the scope of many have been expanded.³ The suggestion “that a corporation’s ‘intellectual capital’ is its most valuable asset” helps to explain this expansion in the scope of intellectual property rights.⁴

This expansion of intellectual property rights has brought about an increase in the amount of overlap between intellectual property rights.⁵ Although the courts have at times been unwilling to allow some areas of overlap,⁶ several areas of overlap between intellectual property rights have been identified and allowed. Existing areas of overlap are the overlap

1. Richard J. Warburg & Stephen B. Maebius, *Warning: Research Dollars at Risk!*, PHARMACEUTICAL & MED. DEVICE, Apr. 22, 2003, at 1.

2. See United States Patent and Trademark Office, *Performance and Accountability Report Fiscal Year 2003, Other Accompanying Information*, tbl. 6.4.6 (2003), available at http://www.uspto.gov/web/offices/com/annual/2003/060406_table6.html (last visited Jan. 26, 2005) (providing that the number of patents issued per year has more than tripled over the last twenty years, from 59,715 in 1983, to 189,597 in 2003).

3. See Andrew Beckerman-Rodau, *The Choice Between Patent Protection and Trade Secret Protection: A Legal and Business Decision*, 84 J. PAT. & TRADEMARK OFF. SOC'Y 371, 372, 375 (2002) (noting that patent law has been extended to computer software, non-human life forms, business methods, as well as new varieties of plants).

4. JAMES POOLEY, TRADE SECRETS, § 1.02 [1] (2004); Thomas A. Stewart, *Your Company's Most Valuable Asset: Intellectual Capital*, FORTUNE, October 3, 1994, at 68.

5. Beckerman-Rodau, *supra* note 3, at 375.

6. See *TraFFix Devices Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 32 (2001) (holding that an expired utility patent precludes a claim for trade dress protection); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 225 (1964) (holding that state unfair competition law cannot “impose liability for or prohibit the copying of an article which is protected by neither a federal patent or copyright”).

between: trade secrets and patents;⁷ trade secrets and the Plant Variety and Protection Act (PVPA);⁸ utility patents and the PVPA as well as the Plant Patent Act;⁹ trade dress and copyrights;¹⁰ and between trade dress and design patents.¹¹

This note will identify and explore the areas of overlap, and attempt to establish the existing limits on dual and multiple protection of intellectual property. Specifically, this note will focus on the overlap between utility patents, plant patents, the PVPA, and trade secrets. The overlap between trade dress, copyrights, and design patents has been explored elsewhere and will not be discussed here.¹²

Part II of this note will provide the necessary background and scope of the individual intellectual property rights. Part III will address how the courts have dealt with the potential overlap between intellectual property rights relating to plants. It addresses the overlap between the Plant Patent Act, the PVPA, utility patents, as well as trade secrets, and further demonstrates the courts' willingness to allow those areas of overlap.

Part IV will address how the courts have dealt with the overlap between patents and trade secrets and will also illustrate precise areas of overlap. The examination shows that, while the ability of patents and trade secrets to coexist is certain, the extent of coexistence has not been well defined. Furthermore, several areas of overlap are explored including information disclosed to satisfy the patent requirements of best mode and written description.

7. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989) (stating that "the protection offered by trade secret law may 'dovetail' with the incentives created by the federal patent monopoly").

8. See *Pioneer Hi-Bred Int'l v. Holden Found.*, 35 F.3d 1226, 1242 (8th Cir. 1994) (holding that the PVPA does not preempt state trade secret law as applied to sexually reproducing plants).

9. See *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 144 (2001) (holding that the Plant Patent Act and the Plant Variety Protection Act "can be read alongside" the statutory subject matter requirements of 35 U.S.C. § 101 and further stating that "dual protection" is not inconsistent with the patent policy of encouraging invention).

10. See Lauren Krohn, *Cause of Action for Trade Dress Infringement under § 43(a) of Lanham Act*, 7 CAUSES OF ACTION 2D 725, § 2 (2003) (stating that "there is a strong overlap between features that may be protected under copyright law, and those protectable as trade dress," and collecting cases to support the contention).

11. See *Traffix Devices Inc.*, 532 U.S. at 34 (providing dicta indicating that trade dress protection would be allowed for "arbitrary, incidental, or ornamental aspects of features of a product found in . . . patent claims . . ."); *Bonito Boats*, 489 U.S. at 154 (stating that "[t]rade dress is, of course, potentially the subject matter of design patents.").

12. See Perry J. Saidman, *Kan Traffix Kops Catch the Karavan Kopy Kats? or Beyond Functionality: Design Patents Are the Key to Unlocking the Trade Dress/Patent Conundrum*, 82 J. PAT. & TRADEMARK OFF. SOC. 839, 853-57 (2000) (discussing the "functionality doctrine" and how it applies to the trade dress/patent overlap); see also Robert C. Dorr & Christopher H. Munch, *Trade Dress Law*, 90 TRADEMARK REP. 816, 816-17 (Sept.-Oct. 2000) (stating that the book traces the overlap between trade dress, copyright, trademark, and design patent protection).

Part V will discuss the existence and sufficiency of the limitations on the previously identified areas of overlap. An examination is included of the judicially created limitation on the plant and utility patent overlap, and this limitation is further analogized to suggest the need for a similar limitation on the overlap between the PVPA and patents for plants. The inherent limitations on the overlap between patents and trade secrets, and the PVPA and trade secrets are also explored. Finally, Part VI concludes that the coexistence and overlap of these intellectual property rights furthers the underlying policy of promoting invention, and that one external limitation should be provided on the overlap between patents and the PVPA.

II. BACKGROUND AND SCOPE

A. PATENTS

The United States Constitution gives Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”¹³ While the clause contains a grant of power, it also contains limitations on the use of that power.¹⁴ “Congress may not create patent monopolies of unlimited duration, nor may it ‘authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available.’”¹⁵

Furthermore, while the exclusive right given to inventors is an incentive to take risks by investing enormous costs, the exclusive right is not given freely.¹⁶ A quid pro quo exists where the inventor has to provide full disclosure of his invention in exchange for the exclusive right to exclude others from making, using, marketing, and selling the invention.¹⁷ This exchange benefits both the inventor and society by introducing new

13. U.S. CONST. art. I, § 8, cl. 8.

14. *Bonito Boats*, 489 U.S. at 146.

15. *Id.* (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 6 (1966)).

16. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974).

17. *Id.* Title 35 lends further support to the full disclosure requirement by providing:

Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

35 U.S.C. § 154 (2000).

products and machines into the economy, while maintaining the inventor's willingness to disclose.¹⁸

The United States Patent and Trademark Office grants three different types of patents: utility patents,¹⁹ plant patents,²⁰ and design patents.²¹ The requirements to obtain utility patents and plant patents as well as the protection each provides will be discussed in turn.

1. *Utility Patents*

To obtain a utility patent, the invention must be new,²² useful,²³ and non-obvious.²⁴ Furthermore, the invention must be of the appropriate subject matter.²⁵ Finally, 35 U.S.C. § 112²⁶ sets out the minimum disclosure requirements necessary to justify the grant of a patent.²⁷ Specifically, "the patentee must disclose in the patent sufficient information to put the public in possession of the invention and to enable those skilled in the art to make

18. *Kewanee*, 416 U.S. at 480-81.

19. 35 U.S.C. §§ 101-57 (2000). Section 101 provides: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor [sic], subject to the conditions and requirements of this title." 35 U.S.C. § 101.

20. 35 U.S.C. §§ 161-64 (2000). Section 161 provides:

Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor [sic], subject to the conditions and requirements of this title.

The provisions of this title relating to patents for inventions shall apply to patents for plants, except as otherwise provided.

35 U.S.C. § 161.

21. 35 U.S.C. §§ 171-73 (2000); Colleen R. Butcher, *An Exploration of the Unintended Temporal Extension of the Plant Patent Term*, 42 DUQ. L. REV. 137, 139 (2003).

22. *See* 35 U.S.C. § 101 (providing "[w]hoever invents or discovers any new...") (emphasis added); *see also* 35 U.S.C. § 102 (providing novelty conditions that a patent must satisfy).

23. *See* 35 U.S.C. § 101 (providing "[w]hoever invents or discovers any new and useful...") (emphasis added); *see also* 35 U.S.C. § 112 (providing "[t]he specification shall contain a written description... to enable a person... to make and use the [invention]" (emphasis added)).

24. *See* 35 U.S.C. § 103 (providing non-obviousness conditions an application must satisfy to issue as a patent); *see also* *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 12-14, 17 (1966) (providing that nonobviousness is a requirement for patentability and setting forth four factual inquiries to determine compliance).

25. *See* 35 U.S.C. § 101 (providing that invention must be a "process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...").

26. Hereinafter all textual references to section numbers will refer to Title 35 United States Code.

27. *See* 35 U.S.C. § 112 para. 1 (setting out written description, enablement, and best mode disclosure requirements).

and use the invention.”²⁸ Furthermore, “[t]he applicant must not conceal from the public the best way of practicing the invention that was known to the patentee at the time of filing the patent application.”²⁹ If the patentee does not comply with these disclosure requirements, the patent application may be denied or an already issued patent may be invalidated.³⁰

Once all of these stringent requirements and several other formal requirements³¹ have been satisfied, a patentee is entitled to the exclusive rights to the invention for a twenty-year term.³² These exclusive rights are not an affirmative right to make, use, or sell the invented device, but rather they grant the “right to exclude others from making, using, or selling the invention.”³³ Furthermore, the patentee’s failure to use the invention does not affect the validity of the patent.³⁴ Upon the expiration of this twenty year term, the patent rights created cease to exist and the invention is free for public use.³⁵

A utility patent may also be obtained for a plant.³⁶ In addition to meeting the requirements of novelty, utility, and non-obviousness, “the plant must meet the specifications of Section 112, which require a written description of the plant and a deposit of seed that is publicly accessible.”³⁷ However, utility patents have not always been extended to cover plants.³⁸

2. *Plant Patents*

The first patent coverage extended to plants was through the Plant Patent Act (PPA) of 1930.³⁹ Congress amended the law pertaining to plant

28. MAGDALEN Y. C. GREENLIEF, U.S. PATENT & TRADEMARK OFFICE, *MANUAL OF PATENT EXAMINING PROCEDURE* § 2162 (2004).

29. *Id.*

30. *Id.*

31. See 35 U.S.C. § 151 (2000) (requiring payment of issue fee within three months of allowance or the application goes abandoned); see also 37 C.F.R. § 1.362 (2004) (requiring payment of periodic maintenance fee for utility patents before expiration of grace period or the patent will expire).

32. See 35 U.S.C. § 154(a)(2) (2000) (providing that the term begins on the date the patent issues and expires twenty years from the filing date).

33. DONALD S. CHISUM, *CHISUM ON PATENTS* § 16.02[1] (2004).

34. *Special Equip. Co. v. Coe*, 324 U.S. 370, 378-79 (1945) (citations omitted).

35. *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 185 (1896); *Kellogg Co. v. Nat'l Biscuit Co.*, 305 U.S. 111, 118 (1938).

36. *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l*, 534 U.S. 124, 131 (2001).

37. *Id.*; see also 37 C.F.R. §§ 1.801-809 (2004) (providing rules for the deposit of seed).

38. See *J.E.M. Ag Supply*, 534 U.S. at 132 (noting that plants had not been granted any patent protection prior to the creation of the Plant Patent Act).

39. Ann K. Wooster, Annotation, *Construction and Application of Plant Patent Act* (35 U.S.C.S. §§ 161 et seq.), 135 A.L.R. Fed. 273 (1996).

patents several times until the requirements to obtain a patent under the PPA were finalized in 1954.⁴⁰

The current eligibility requirements for a plant patent require that the plant be new and distinct, asexually reproduced, and not tuber propagated or found in an uncultivated state.⁴¹ Furthermore, other than a few exceptions, a plant patent application must meet requirements similar to those imposed on utility patents.⁴² Under these exceptions, descriptions contained in a plant patent application must be “as complete as is reasonably possible,” no deposit of seed is required for plants, and a single formal claim must be used.⁴³ Additionally, the United States Code “implicitly recognizes there is no possibility of producing the plant from a disclosure as 35 U.S.C. § 112 contemplates.”⁴⁴ “Therefore, there is no requirement for any how-to-make disclosure in the application for a plant patent.”⁴⁵ Plant patents, like utility patents, also offer the same right to exclude others from producing, offering for sale, or selling the plant for a period of twenty years from the filing date of the application.⁴⁶

B. PLANT VARIETY AND PROTECTION ACT

In 1970, through the creation of the Plant Variety and Protection Act (PVPA), Congress created patent-like protection for sexually reproduced plants.⁴⁷ The protection stems from the issuance of a certificate by the Plant Variety Protection Office in the Department of Agriculture as opposed to the issuance of a patent by the Patent and Trademark Office.⁴⁸ The current version of the PVPA extends protection to “any sexually reproduced or tuber propagated plant variety (other than fungi or bacteria),”⁴⁹ but requires that the variety be “new,”⁵⁰ “distinct,”⁵¹ “uniform,”⁵² and “stable.”⁵³

40. *Id.*

41. 35 U.S.C. § 161.

42. *See id.* (providing that general patent provisions shall apply to plants unless otherwise provided for in the plant patent provisions); 35 U.S.C. § 162 (indicating that the written description requirement of 35 U.S.C. § 112 may be relaxed for plant patent applications).

43. 35 U.S.C. § 162; CHISUM, *supra* note 33, 1-1 § 1.05.

44. Application of LeGrice, 301 F.2d 929, 944 (C.C.P.A. 1962).

45. *Id.*

46. 35 U.S.C. § 163; CHISUM, *supra* note 33, 5-16 § 16.04[6].

47. CHISUM, *supra*, note 33, 1-1 § 1.05.

48. *Id.*; JOHN GLADSTONE MILLS III, DONALD C. REILEY III, & ROBERT C. HIGHLEY, 1 PAT. L. FUNDAMENTALS, § 7.24, (2d ed. 2004) [hereinafter MILLS, REILEY & HIGHLEY].

49. 7 U.S.C. § 2402(a) (2000); CHISUM, *supra*, note 33, 1-1 §1.05[2][a][iii].

50. *See* 7 U.S.C. § 2402(a)(1) (stating “new, in the sense that, on the date of filing of the application for plant variety protection, propagating or harvested material of the variety has not

While “[t]he certification standards of the PVPA are less rigorous than the standards for utility . . . and plant patents,”⁵⁴ the “new” and “distinct” requirements are analytically similar to the statutory bar and novelty-anticipation concepts from patent law, respectively.⁵⁵ Further, similar to plant protection via utility patents, a PVPA application must include a description of the invention⁵⁶ and a deposit of a viable sample necessary for the plant’s propagation.⁵⁷

The policy of the PVPA is also similar to the policy behind patent and trade secret law: to provide an incentive for inventors to invest in their inventions.⁵⁸ To serve this purpose, the PVPA creates rights for certificate holders similar to those afforded patent holders. Like with patents, the rights granted are not affirmative rights but rather the right to exclude others from performing specific acts.⁵⁹ Additionally, the PVP certificate provides those rights only for a finite time period ending twenty years from the certificate’s issue date (except for trees and vines whose certificates expire 25 years from issuance).⁶⁰ However, at least one difference between PVP certificates and utility patents is in the scope of protection provided.⁶¹ While a utility patent may “claim multiple parts of [a] plant[], including genomes coding for nonplant proteins, cells and cell cultures, plant tissue, and wholly differentiated plants,” a PVP certificate protects the entire plant only, not including its individual parts.⁶²

been sold or otherwise disposed of to other persons”); *see generally* CHISUM, *supra*, note 33, 1-1 §1.05[2][a][ii] (providing “new” requirement).

51. *See* 7 U.S.C. § 2402(a)(2) (stating “distinct, in the sense that the variety is clearly distinguishable from any other variety the existence of which is publicly known or a matter of common knowledge at the time of the filing of the application”); *see generally* CHISUM, *supra*, note 33, 1-1 §1.05[2][a][ii] (providing “distinct” requirement).

52. *See* 7 U.S.C. § 2402(a)(3) (stating “uniform, in the sense that any variations are describable, predictable, and commercially acceptable”); *see generally* CHISUM, *supra*, note 33, 1-1 §1.05[2][a][ii] (providing “uniform” requirement).

53. *See* 7 U.S.C. § 2402(4) (stating “stable, in the sense that the variety, when reproduced, will remain unchanged with regard to the essential and distinctive characteristics of the variety with a reasonable degree of reliability commensurate with that of varieties of the same category in which the same breeding method is employed”); *see generally* CHISUM, *supra*, note 33, 1-1 §1.05[2][a][ii] (providing “stable” requirement).

54. CHISUM, *supra*, note 33, 1-1 §1.05[2][a][i].

55. *Id.* at §1.05[2][a][ii].

56. 7 U.S.C. § 2422(2) (2000).

57. 7 U.S.C. § 2422(4) (2000).

58. CHISUM, *supra*, note 33, 1-1 §1.05[2].

59. *See* 7 U.S.C. § 2541(a)(1)-(10) (2000) (providing a list of ten acts constituting infringement when performed by someone other than the certificate owner and without the owner’s authority including selling, using, importing, and producing the protected variety).

60. CHISUM, *supra*, note 33, 1-1 § 1.05[2][d][ii]; 7 U.S.C. § 2483(b)(2)(A)-(B) (2000).

61. MILLS, REILEY & HIGHLEY, *supra*, note 48.

62. CHISUM, *supra*, note 33, 1-1 § 1.05[4].

C. TRADE SECRETS

Unlike the federal patent laws, the power to create trade secret laws was not vested in Congress by the Constitution, but instead was left to the states.⁶³ Despite the ability of each state to determine its own approach to trade secret law, forty-two states have adopted some form of the Uniform Trade Secret Act (UTSA).⁶⁴ Thus, most states now use the UTSA's definition of a trade secret.⁶⁵ The Restatement of Torts definition is also widely used in case law, even among the states that have adopted the UTSA.⁶⁶ While the exact definition of trade secret varies, four fundamental concepts must be present in any definition: (1) it must consist of qualifying information; (2) it must be secret; (3) reasonable efforts must be made to preserve secrecy; and, (4) the secret must give a competitive advantage.⁶⁷

Regardless of which definition is used, it is clear that "trade secrets cover an enormous amount of information."⁶⁸ Unlike a patentable invention, a trade secret does not necessarily require novelty.⁶⁹ Negative trade secrets may even be kept concerning efforts that have been discovered not to work.⁷⁰ Unlike patents, trade secrets do not have a precise and universal definition and, consequently they do not have the rigid requirements of a patentable invention.⁷¹ In fact, a patentable invention is but a subset of the information covered by trade secret law.⁷²

63. Robert K. Hur, *Takings, Trade Secrets, and Tobacco: Mountain or Molehill?*, 53 STAN. L. REV. 447, 459 (November 2000).

64. See Marina Lao, *Federalizing Trade Secrets Law in an Information Economy*, 59 OHIO ST. L.J. 1633, 1657 (1998) (listing states who have enacted some version of the UTSA, including North Dakota and Minnesota).

65. UNIF. TRADE SECRETS ACT, § 1(4) (1985). The Act specifically provides:

"[t]rade secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not be readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Id.

66. POOLEY, *supra* note 4, § 1.01. The RESTATEMENT OF TORTS § 757, cmt. b (1939) provides: "A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it."

67. POOLEY, *supra* note 4, § 1.01.

68. *Id.*

69. *Id.*

70. *Id.*; see also 12 AM. JUR. POF 3d 711 § 4 (2004) (providing that information on failed experiments may be a "negative" trade secret).

71. Compare UNIF. TRADE SECRETS ACT, § 1(4) and POOLEY, *supra* note 4, § 1.01 (providing varying definitions for trade secrets) with 35 U.S.C. §§ 100-103, 112 (providing rigid requirements that must be satisfied).

72. POOLEY, *supra* note 4, § 1.01.

One of the main policies behind trade secret law, the encouragement of invention,⁷³ is also a fundamental policy of patent law.⁷⁴ However, it is important to note that the two requirements of secrecy and efforts to preserve secrecy are fundamentally at odds with the patent law requirement of disclosure.⁷⁵ This juxtaposition illustrates that while the policy of promoting and encouraging invention is the same for both patent law and trade secret law, the policy is furthered using radically different approaches.⁷⁶

III. MULTIPLE PROTECTION OF INTELLECTUAL PROPERTY AVAILABLE FOR PLANTS

The courts have been willing to expand rather than curtail the extension and overlap of intellectual property rights relating to plants.⁷⁷ For example, the Supreme Court has held that the creation of the PPA was not intended to limit the scope of protection available to plants from a utility patent.⁷⁸ Similarly, the Court chose to allow concurrent protection of sexually reproduced plants by holding that the PVPA does not limit an inventor from obtaining utility patent protection for such plants.⁷⁹ Furthermore, the Eighth Circuit, supported by Supreme Court cases,⁸⁰ refused to hold that the PVPA preempts state trade secret law.⁸¹

A. PPA AND UTILITY PATENT OVERLAP

The subject matter protected by the PPA is distinct from that of the PVPA and plant protection under utility patents. While the PVPA and

73. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 481 (1974) (providing “[t]he maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law”); POOLEY, *supra* note 4, § 1.02[3].

74. See POOLEY, *supra* note 4, § 3.01[1][a] (providing that encouragement of invention is an important aspect of patent law).

75. Compare POOLEY, *supra* note 4, § 1.01 (providing definition of trade secret and listing two elements as secrecy of the information and an effort to maintain the secrecy of the information) with 35 U.S.C. § 112 (providing that the specification contain “full, clear, precise, and exact terms” enabling a person of ordinary skill in the art to make the invention and that the claims “particularly point[] out and distinctly claim the subject matter” regarded as the invention).

76. POOLEY, *supra* note 4, § 1.02[3].

77. See *J.E.M. Ag Supply v. Pioneer Hi-Bred Int’l*, 534 U.S. 124, 145 (2001) (providing that the PVPA does not limit one’s ability to obtain a utility patent).

78. *Id.* at 145.

79. *Id.*

80. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 485-87 (1974) (holding that trade secret and patent protection can coexist); *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989) (stating that trade secret protection may “dovetail” with patent incentives).

81. *Pioneer Hi-Bred Int’l v. Holden Found. Seeds, Inc.*, 35 F.3d 1226, 1242-43 (8th Cir. 1994).

utility patent extend protection only to sexually reproduced plants,⁸² the PPA provides patent protection for asexually reproduced plants.⁸³ Therefore, the PPA overlaps with the rights provided by the PVPA or a utility patent only to the extent that a plant may be reproduced using both methods.⁸⁴ While the extent of this overlap is important, it is first important to understand how the Supreme Court analyzed the treatment of the PPA in its determination that a plant may receive patent protection from a utility patent.

In *J.E.M. Ag Supply v. Pioneer Hi-Bred International, Inc.*,⁸⁵ the Supreme Court was unwilling to limit the available Section 101⁸⁶ utility patent protection and, therefore, refused to hold that the creation of the PVPA provided the exclusive means for protecting sexually reproduced plants.⁸⁷ In *J.E.M.*, the petitioner purchased Pioneer's hybrid seed, which was protected by a utility patent.⁸⁸ Petitioner, although not licensed, resold those bags and a patent infringement suit was brought by Pioneer.⁸⁹

Rather than claim patent invalidity for failure to comply with the PTO's requirements, the petitioner argued that the creation of the more specific PPA and the PVPA statutes precluded plant patent coverage by utility patents.⁹⁰ The petitioner provided "three reasons why the PPA should preclude assigning utility patents for plants."⁹¹ These reasons are as follows: (1) prior to 1930, plants were not covered by utility patents, otherwise there was no reason to pass the PPA in that year; (2) "the PPA's limitation to asexually reproduced plants would make no sense if Congress intended Section 101 to authorize patents on plant varieties that were sexually reproduced"; and, (3) the 1952 amendment to Section 101 would not have moved the plant subject matter language to Section 161 if Section 101 was still intended to cover plants.⁹²

82. 7 U.S.C. 2402(a) (2000); *J.E.M. Ag Supply*, 534 U.S. at 127.

83. 35 U.S.C. § 161 (2000).

84. See, *Pioneer Hi-Bred Int'l, Inc. v. DeKalb Genetics Corp.*, 51 U.S.P.Q.2d 1797, 1799 (1999) (stating that sexually reproducing plants may be protected by the PVPA, general utility patents, the Plant Patent Act, as well as be common law trade secret protection); see GREENLIEF, *supra* note 28 (stating that plants capable of sexual reproduction are not excluded from PPA protection as long as they have also been asexually reproduced).

85. 534 U.S. 124 (2001).

86. 35 U.S.C. § 101 (2000).

87. *J.E.M. Ag Supply*, 534 U.S. at 138.

88. *Id.* at 128.

89. *Id.*

90. *Id.* at 129.

91. *Id.* at 133.

92. *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l*, 534 U.S. 124, 134, 137 (2001).

The majority disagreed with all of the petitioner's arguments.⁹³ The first argument was rejected because the Court stated the argument was inconsistent with the broad language of the utility patent statute to preclude utility patent coverage for plants simply because it was unforeseen in 1930 that the allowable subject matter of Section 101 would later be interpreted to include sexually reproduced plants.⁹⁴ The petitioner's second argument was also dismissed after the majority considered that the then-current technology showed asexual reproduction of plants to be the only "stable way to maintain desirable bred [sic] characteristics."⁹⁵ Therefore, it would have made sense to create patent protection for the technology pertinent at the time.⁹⁶

Finally, the third argument was also quickly dismissed because the Court found that Congress had not demonstrated an express intent to make Section 161 the exclusive method of patenting plants.⁹⁷ This was supported by the fact that the 1952 amendment did not change the rights or requirements associated with a plant patent, but merely moved the plant patent language to its own section.⁹⁸ Thus, the Court determined that utility patents were not precluded from plant protection, and thereby allowed dual protection where the requirements of both the PPA and utility patent are satisfied.⁹⁹

B. PVPA AND UTILITY PATENT OVERLAP

The petitioner in *J.E.M.* also advanced three unsuccessful arguments to contend that the PVPA displaced utility patent protection of plants: (1) that the creation of the PVPA itself "evidences Congress' intent to deny broader utility patent protection for such plants";¹⁰⁰ (2) that the PVPA impliedly altered utility patent subject matter;¹⁰¹ and (3) that 'dual protection' from overlapping statutes cannot exist "to protect the same commercially valuable thing."¹⁰²

The petitioner relied on legislative history to support the argument that the PVPA provides the exclusive means for protection of plant subject

93. *Id.* at 138.

94. *Id.* at 135.

95. *Id.*

96. *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l*, 534 U.S. 124, 136 (2001).

97. *Id.* at 137-38.

98. *Id.* at 138.

99. *Id.* at 133.

100. *Id.* at 138.

101. *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l*, 534 U.S. 124, 142 (2001).

102. *Id.* at 144.

matter.¹⁰³ However, because the statutory language of the PVPA itself does not contain a statement indicating that it was to provide exclusive protection for plants, the Court quickly dispensed with this argument.¹⁰⁴

The petitioner's second argument, that the PVPA impliedly altered the subject matter protected by utility patents, was also dismissed because the Court found no irreconcilable conflict between the two statutes.¹⁰⁵ The Court noted that it is easier to obtain a PVP certificate because it is not necessary to show usefulness or nonobviousness.¹⁰⁶ Furthermore, because a PVP certificate is less difficult to obtain than a utility patent, the certificate holder has fewer protected rights.¹⁰⁷ Therefore, because each statute had different requirements and provided different rights, the Court held that each was effective.¹⁰⁸

Finally, the petitioner's third argument, that overlapping statutes cannot exist to protect the same intellectual property, was likewise dismissed based on the Court's longstanding recognition that two overlapping statutes are valid and given effect "so long as each reaches some distinct cases."¹⁰⁹ As a result, the Court ultimately held that the PVPA does not preclude utility patent protection for plants, and further provided that they may exist concurrently.¹¹⁰

C. OVERLAP BETWEEN TRADE SECRETS AND FEDERAL REGULATIONS FOR PLANTS

The Eighth Circuit in *Pioneer Hi-Bred International v. Holden Foundation Seeds*,¹¹¹ held that state trade secret law is not preempted by the federally created PVPA.¹¹² In so holding, the court noted a lack of express congressional intent to preempt the state law.¹¹³ In that case, Pioneer sued Holden claiming that Holden had misappropriated a specific genetic

103. *Id.*

104. *Id.*

105. *Id.* at 144.

106. *J.E.M. Ag Supply Inc. v. Pioneer Hi-Bred Int'l Inc.*, 534 U.S. 124, 142 (2001).

107. *See id.* at 143 (noting that "PVPA protection still falls short of a utility patent, however, because a breeder can use a plant that is protected by a PVP certificate to 'develop' a new inbred line while he cannot use a plant patented under § 101 for such a purpose").

108. *Id.* at 144.

109. *Id.* at 144; *see also* *Connecticut Nat'l Bank v. Germain*, 503 U.S. 249, 253 (1992) (stating that statutes that overlap "do not pose an either-or proposition" where "each section confers jurisdiction over cases that the other section does not reach").

110. *J.E.M. Ag Supply*, 534 U.S. at 143. "Nor can it be said that the [PVPA and patent] statutes 'cannot mutually coexist.'" *Id.*

111. 35 F.3d 1226 (8th Cir. 1994).

112. *Pioneer Hi-Bred Int'l*, 35 F.3d at 1243.

113. *Id.*

message from a hybrid corn seed.¹¹⁴ On top of Holden's arguments that Pioneer failed to satisfy the requirements of a trade secret,¹¹⁵ Holden argued that the PVPA preempts the state trade secret claim and thus Pioneer should not have had a cause of action.¹¹⁶ The court held that the corn seeds were trade secrets despite the availability of the corn to purchasers.¹¹⁷ Furthermore, the court held that the existence of the federally created PVPA does not preclude sexually produced plants that would otherwise qualify for coverage under the PVPA from being protected under state trade secret law.¹¹⁸

In a similar case, a defendant to a trade secret action urged the district court to distinguish *Pioneer Hi-Bred Int'l* and find that a pineapple could not constitute a trade secret because it was capable of asexual reproduction.¹¹⁹ The court refused to do so, stating that there was "no legal or logical basis for such a distinction."¹²⁰ Thus, trade secret protection extends to both asexually and sexually reproduced plants.¹²¹

While these cases do not expressly state that the PVPA and trade secret law may operate concurrently to protect a plant variety, it is a small, logical step to arrive at that conclusion. Because "the protection offered by trade secret law may 'dovetail' with the incentives created by the federal patent monopoly,"¹²² and because the PVPA offers patent like protection and incentives, it follows that trade secret law may "dovetail" with PVPA protection. This overlap between patents and trade secrets will be explored further in the next section.

IV. OVERLAP BETWEEN PATENTS AND TRADE SECRETS

While the ability of patents and trade secrets to coexist is no longer in doubt, there is a lack of authority detailing the extent to which the two

114. *Id.* at 1229.

115. *See id.* at 1235-39 (arguing unsuccessfully that Pioneer failed to maintain the secrecy of the genetic message and failed to demonstrate misappropriation of the genetic message).

116. *Id.* at 1242.

117. *Pioneer Hi-Bred Int'l v. Holden Found. Seeds Inc.*, 35 F.3d at 1236, 1241 (8th Cir. 1994). While seed might have been available at an elevator, there would not have been an easy way to identify the desired hybrid seed. *Id.* at 1236. The greater the cost, difficulty, and required time to develop the information, the less likely that the information is "readily" ascertainable, and the more likely that it is appropriate subject matter for a trade secret. *Id.*

118. *Id.* at 1243.

119. *Del Monte Fresh Produce Co. v. Dole Food Co.*, 136 F. Supp. 2d 1271, 1292 (S.D. Fla. 2001).

120. *Id.*

121. *Id.*; *Pioneer Hi-Bred Int'l v. Holden Foundation Seeds Inc.*, 35 F.3d 1226, 1242-43 (8th Cir. 1994).

122. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989).

methods of intellectual property protection may overlap.¹²³ This section will provide a background of the Supreme Court case law on the coexistence of the two intellectual property rights, and summarize the open-ended way the court has described the overlap. Finally, an analysis will demonstrate the possible areas of overlap.

A. BACKGROUND

In *Sears, Roebuck & Co. v. Stiffel Co.*,¹²⁴ and *Compco Corp. v. Day-Brite Lighting, Inc.*,¹²⁵ the Supreme Court indicated a hard line rule that federal patent law must preempt state law.¹²⁶ However, the Supreme Court in *Kewanee Oil Co. v. Bicron Corp.*,¹²⁷ altered its treatment of the patent and trade secret overlap and forcefully stated that “[t]rade secret law and patent law have co-existed in this country for over one hundred years. Each has its particular role to play, and the operation of one does not take away from the need for the other.”¹²⁸ In its opinion, the *Kewanee* Court noted that patents and trade secrets had similar policy objectives, most importantly the encouragement of invention.¹²⁹ The Court went on to examine the interactions between patent law and trade secret law to attempt to determine what level of encroachment was too much.¹³⁰ The Court noted that the patent policy of disclosure conflicted with the trade secret requirement of secrecy, but then attempted to reconcile the two policies.¹³¹ In doing so, the Court examined three different categories of trade secrets: “(1) the trade secret believed by its owner to constitute a validly patentable invention; (2) the trade secret known to its owner not to be so patentable; and (3) the trade secret whose valid patentability is considered dubious.”¹³²

The first two categories were determined to further the patent policy of disclosure by encouraging invention where patents provide no protection, and allowing the dissemination of trade secret protected licenses when the inventor is unwilling to take the risk that he has a patentable invention,

123. *Id.*

124. 376 U.S. 225 (1964).

125. 376 U.S. 234 (1964).

126. *See Sears*, 376 U.S. at 232-33 (holding that state law could not prevent the copying of an unpatented item); *Compco*, 376 U.S. at 237 (reiterating its holding in *Sears*, the Court stated “when an article is unprotected by a patent or a copyright, state law may not forbid others to copy that article”).

127. 416 U.S. 470 (1974).

128. *Kewanee*, 416 U.S. at 493.

129. *Id.* at 480-81.

130. *Id.* at 482.

131. *Id.* at 484.

132. *Id.* at 484 (citing *Painton & Co. v. Bourns, Inc.*, 442 F.2d 216, 224 (C.A.N.Y. 1971)).

respectively.¹³³ The third category was reconciled with patent law based on the idea that trade secret law provides weaker protection than patent laws.¹³⁴ Therefore, the Court came to the conclusion that “[s]tates should be free to grant protection to trade secrets” even for material capable of being patented.¹³⁵

In *Bonito Boats Inc. v. Thunder Craft Boats, Inc.*,¹³⁶ the Court invalidated a state statute that banned the reproduction of boat hulls from a direct molding process because the law prohibited the public from reverse-engineering a product that was already in the public domain.¹³⁷ The *Bonito Boats* Court reaffirmed the implicit decision of *Sears* and *Compco*, “that all state regulation of potentially patentable but unpatented subject matter is not *ispo facto* pre-empted by the federal patent laws.”¹³⁸ Thus the Court acknowledged the *Kewanee* decision¹³⁹ while scaling back the broad reading of *Sears*.¹⁴⁰ Further, the Court tentatively indicated that trade secret law may, to a certain extent, “dovetail” with patent law during the developmental stages of the product.¹⁴¹

It is clear from these cases that federal patent law does not preempt state trade secret law. However, the courts have not given a clear indication of the allowable extent of overlap.¹⁴² At best, the *Bonito Boats* Court stated that some amount of overlap may be possible; however, the Court also indicated that this overlap would likely only be possible at the developmental stage of the invention.¹⁴³

133. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 485, 488 (1974).

134. *See id.* at 489-90 (noting that patent law acts as a barrier to independent inventors where as trade secret law acts like a sieve and therefore an inventor is unlikely to rely on trade secret protection where patent protection is available).

135. *Id.* at 493.

136. 489 U.S. 141 (1989).

137. *Bonito Boats*, 489 U.S. at 160.

138. *Id.* at 154.

139. *See id.* at 155 (stating that the court made the implicit holding of *Sears* explicit in *Kewanee*).

140. *See id.* at 154 (stating “[t]hat [the] broad pre-emptive principle from *Sears* is inappropriate”).

141. *Id.* at 161.

142. *See Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989) (providing that, “to a certain extent, the protection offered by trade secret law may ‘dovetail’ with a patent’s incentives, but not providing for the extent of the overlap).

143. *Id.*

B. UNEXPLORED AREAS OF OVERLAP

The slight indication of a possible overlap provided in *Bonito Boats* does not fully encompass the range of overlap available for utilization.¹⁴⁴ Even at the production and early patent application stages, extra measures must be taken to preserve an invention's secret status.¹⁴⁵ Furthermore, it may be possible to obtain dual protection of intellectual property through both a patent and a trade secret at more than just the developmental stage of an invention.¹⁴⁶

While it is still possible to retain a trade secret on a product during the patent application process, current patent laws mandate that a patent application be published eighteen months after its filing date.¹⁴⁷ Thereafter, any information included in the patent application will be available to the public.¹⁴⁸ However, there are exceptions to the eighteen month publication rule.¹⁴⁹ Of these exceptions, the ability to file a nonpublication request, would allow for the inventor to maintain an invention's trade secret status.¹⁵⁰ In exchange for the nonpublication grant, the invention must not have been published and will not be published in a foreign application or other application that requires mandatory publication.¹⁵¹ Thus, if the inventor is willing to sacrifice his ability to obtain a foreign patent, he may maintain the secrecy of his invention up to publication of the patent or, until the secret is otherwise revealed if the patent is not issued.¹⁵²

144. See *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991) (indicating that a method of practicing an invention need not be disclosed under the best mode requirement if it was not the preferred method of the inventor, and therefore may be maintained as a trade secret); *In re Hayes Microcomputer Products Patent Litig.*, 982 F.2d 1527, 1536 (Fed. Cir. 1992) (indicating that a disclosure sufficient to satisfy the written description requirement may still be maintained as a trade secret).

145. See 35 U.S.C. § 102 (2000) (providing conditions for patentability including that the invention not be in use or on sale more than one year prior to date of application for patent).

146. See e.g. *Transco Prod. Inc. v. Performance Contracting, Inc.* 38 F.3d 551, 557-59 (Fed. Cir. 1994) (indicating that the best mode disclosure need not be updated when filing a continuing application thereby allowing for the maintenance of trade secrets after the initial development of the invention).

147. 37 C.F.R. § 1.211(a) (2004).

148. *Id.*

149. See 37 C.F.R. § 1.211(a)(1)-(4) (stating that an application, other than a provisional or design patent application, shall be published after the expiration of eighteen months from the filing date unless: (1) the application is no longer pending; (2) the application pertains to national security; (3) the patent application has issued as a patent; and (4) the application included a nonpublication request in compliance with 37 C.F.R. § 1.213(a)).

150. See 37 C.F.R. § 1.213(a) (providing the circumstances under which a non-publication request will be granted).

151. *Id.*

152. R. CARL MOY, *MOY'S WALKER ON PATENTS*, § 3:63 (4th ed. 2004).

This is not the only area where patent and trade secret laws may coexist and provide mutually advantageous protection for an inventor. Other areas of overlap between patent law and trade secret law involve the best mode requirement and the written description requirement.¹⁵³

1. *Best Mode Overlap*

The best mode requirement involves a two-part inquiry.¹⁵⁴ The first is a subjective determination assessing whether the inventor possessed the best mode for practicing the invention at the time he applied for the patent.¹⁵⁵ The second inquiry is objective and, if the inventor possessed the best mode, determines if the written description sufficiently disclosed the best mode to allow a person reasonably skilled in the art to practice the invention.¹⁵⁶

The subjective best mode requirement requires that an inventor disclose only what he believes to be the best mode at the time of filing the application.¹⁵⁷ Thus, a patent owner only has to reveal the best mode that he is aware of and may maintain any other methods of practicing the invention not claimed in the patent as a trade secret.¹⁵⁸ Furthermore, the inventor has to disclose the best mode he knew of at the time of application, but has no continuing duty to update the best mode disclosure.¹⁵⁹ This allows an inventor to maintain trade secret protection for any post-application discoveries of a better mode for practicing the invention.¹⁶⁰

153. See *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991) (indicating that the best mode requirement does not require more than the preferred method of the inventor, and therefore a nonpreferred method may be maintained as a trade secret); *In re Hayes*, 982 F.2d at 1536 (indicating that a disclosure sufficient to satisfy the written description requirement may still be maintained as a trade secret).

154. *Eli Lilly and Co. v. Barr Lab., Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2001).

155. *Id.*

156. *Id.*

157. See *Engel Indus.*, 946 F.2d at 1532-33 (stating that an inventor did not have to disclose a crimping method for fastening duct segments together when the inventor's preferred mode was to snap the corners in without a fastening device).

158. See *id.* (indicating that since nonpreferred method of practicing the invention did not have to be disclosed, it could be maintained as a trade secret).

159. See *Transco Prod. Inc. v. Performance Contracting, Inc.* 38 F.3d 551, 557-59 (Fed. Cir. 1994) (holding that an inventor does not have to update the best mode disclosure in a continuing application); cf. *Applied Materials Inc. v. Advanced Semiconductor Materials Inc.*, 98 F.3d 1563, 1579 (Fed. Cir. 1996) (stating "[i]nventors must update their best mode disclosure when filing a continuation-in-part which adds new matter pertinent to the best mode of practicing the invention claimed in the continuation-in-part").

160. *Transco*, 38 F.3d at 557-59.

Furthermore, the objective best mode inquiry does not require disclosure of production details or manufacturing procedures.¹⁶¹ Courts recognize two forms of “production details.”¹⁶² The first form is that of “true” production details, relating to commercial considerations such as equipment and relationships with suppliers, not to the nature of the invention.¹⁶³ The second form refers to routine details related to the nature of the invention, but that a person of ordinary skill in the art would know.¹⁶⁴ Those details do not need to be disclosed to satisfy the objective best mode inquiry because a person of ordinary skill in the art commonly knows routine details.¹⁶⁵ Additionally, because those in the field of the invention commonly know routine details, they would not properly be the subject matter of a trade secret.¹⁶⁶ However, under the broad definition of trade secrets, the equipment used to produce the invention and the business relationships associated with the invention may be appropriate trade secret subject matter.¹⁶⁷

As mentioned previously, the inventor only has to disclose the best mode of practicing the invention that *the inventor* was aware of at the time of application.¹⁶⁸ Thus, another exploitable overlap occurs when another party to the application, such as the inventor’s employer is aware of a better mode.¹⁶⁹ In *Glaxo Inc. v. Novopharm Ltd.*,¹⁷⁰ the inventor of a drug tablet was unaware of an improved process for commercially producing tablets.¹⁷¹ Others at the inventor’s company were aware of the improved process, but did not disclose the information to the inventor.¹⁷² The *Glaxo* court held that there was no best mode violation because the inventor did not have actual knowledge of the best mode known by his employer.¹⁷³ Not only

161. *See id.* at 560 (providing best mode requirement does not require the disclosure of production details as long as the enablement requirement is satisfied).

162. *Young Dental Mfg. Co., Inc. v. Q3 Special Products, Inc.*, 112 F.3d 1137, 1144 (Fed. Cir. 1997); *Great N. Corp. v. Henry Molded Products Inc.*, 94 F.3d 1569, 1572, (Fed.Cir.1996).

163. *Young Dental*, 112 F.3d at 1144.

164. *Id.*; *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1532 (Fed. Cir. 1991).

165. *Young Dental*, 112 F.3d at 1144.

166. RESTATEMENT OF TORTS § 757, cmt. b (1939). “Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret.” *Id.*

167. *Id.* “A trade secret may consist of any formula, pattern, device or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.” *Id.*

168. *Eli Lilly*, 251 F.3d 963; *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1050 (Fed. Cir. 1995) (emphasis added).

169. *Glaxo*, 52 F.3d at 1051-52.

170. 52 F.3d 1043 (Fed. Cir. 1995).

171. *Glaxo*, 52 F.3d at 1050.

172. *Id.* at 1051.

173. *Id.* at 1052.

was the court unwilling to impute the employer's best mode knowledge to the inventor, but the court also indicated in dicta that it was unwilling to find a best mode violation where an employer screens an inventor from research to prevent the inventor's knowledge of the best mode.¹⁷⁴

In *Glaxo*, it could be argued that the employer simply made the decision to protect the tablet making process with a trade secret instead of a patent. However, this does not detract from the overlap.¹⁷⁵ In a different situation, the newly discovered best mode for practicing the invention, discovered after the initial application, may not rise to the level of a patentable improvement appropriate for a separate patent.¹⁷⁶ If the undisclosed best mode is not patentable, the utilization of trade secret rights will overlap with the patent through the developmental stage and could possibly extend beyond the life of the patent.¹⁷⁷

2. *Written Description Overlap*

The first paragraph of Section 112 in part requires that "[t]he specification shall contain a *written description of the invention*, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . ."¹⁷⁸ While the written description does not have to describe the exact subject matter claimed, it must allow persons of

174. *Id.* In dicta, the court stated:

Separating scenarios in which employers unintentionally isolate inventors from relevant research from instances in which employers deliberately set out to screen inventors from research, and finding a best mode violation in the latter case, would ignore the very words of § 112, first paragraph, and the case law as it has developed, which consistently has analyzed the best mode requirement in terms of knowledge of and concealment by the inventor. Congress was aware of the differences between inventors and assignees, see 35 U.S.C. §§ 100(d) and 152, and it specifically limited the best mode required to that contemplated by the inventor. We have no authority to extend the requirement beyond the limits set by Congress.

Id.

175. See *id.* at 1051-52 (indicating that an employer's knowledge will not be imputed to the inventor and therefore the employer may maintain a trade secret pertaining to the invention as long as the inventor is unaware).

176. See *Transco Prod. Inc. v. Performance Contracting, Inc.* 38 F. 3d 551, 558-59 (Fed. Cir. 1994) (holding that even if the newly discovered best mode was patentable, the best mode would not have to be updated in a continuing application).

177. See, *Pitney-Bowes, Inc. v. Mestre* 517 F. Supp. 52, 61 (S.D. Fla. 1981) (stating that, to the extent that trade secret protection does not encroach on federal patent protection, the legal viability of a trade secret may survive the expiration of patent).

178. 35 U.S.C. § 112 (2000) (emphasis added).

ordinary skill in the art to determine that the inventor was in possession of the invention at the time of filing.¹⁷⁹

In *In re Hayes Microcomputer Products Patent Litig.*,¹⁸⁰ the defendant in a patent infringement suit argued that the patent at issue was invalid for failure to meet the written description requirement because a "timing means" was maintained as a trade secret.¹⁸¹ The specification described a software flowchart, and sufficiently recited the function of the item maintained as a trade secret.¹⁸² The court held that the written description requirement was satisfied because one skilled in the art would understand what was intended by the function and know how to carry it out.¹⁸³

As this case illustrates, the courts are willing to allow the complementary overlap of patents and trade secrets, as long as the state law does not directly conflict with federal law, and the federal requirements are satisfied.¹⁸⁴ However, is this the only limitation on the overlap between patents and trade secrets, and if so, is that enough?

V. LIMITATIONS ON DUAL AND MULTIPLE PROTECTION

While the courts have repeatedly agreed that overlapping intellectual property rights are allowable, the courts have yet to establish limits on the overlap.¹⁸⁵ This raises the following: Are the limits inherent in each of the respective rights created and therefore no external limitations are required?¹⁸⁶ In other words, is one form of intellectual property right merely allowed to serve as a complement to another form of intellectual property right so long as the rights do not conflict?¹⁸⁷ If so, is this in-line with the policies behind the respective intellectual property rights?

179. See *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991) (citations omitted) (stating "[a]lthough [the applicant] does not have to describe exactly the subject matter claimed, . . . the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed").

180. 982 F.2d at 1527 (Fed. Cir. 1992).

181. *In re Hayes*, 982 F.2d at 1533 (Fed. Cir. 1992).

182. *Id.* at 1534.

183. *Id.*

184. See *id.* (upholding validity of patent because the written description requirement was satisfied despite the failure to disclose a trade secret).

185. See *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 141 (2001) (holding that PVP certificates and patents may overlap but providing no limits on the extent of overlap); *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989) (providing that patents and trade secrets may "dovetail" but not providing any limitations on the extent of overlap).

186. See *Pitney-Bowes, Inc. v. Mestre*, 517 F. Supp. 52, 61 (S.D. Fla. 1981) (indicating that patent law preempts trade secret law as long as the nature of the trade secret does not impinge upon patent law).

187. *Id.*

A. LIMITATIONS ON THE PLANT PATENT AND UTILITY PATENT OVERLAP

While the Supreme Court in *J.E.M.* acknowledged that the plant patent statutes did not preclude utility patents from being issued for plants, the Court did not identify any limitation on the overlap.¹⁸⁸ However, it is apparent that some limitations preventing multiple protection are inherent in the statutes themselves.¹⁸⁹ For example, two patents of identical scope may not be obtained on the same invention.¹⁹⁰ However, if the scope of the patents varies somewhat, a plant patent and a utility patent may be obtained for the same plant variety as long as the requirements of both statutes are met.¹⁹¹ While this hurdle alone may be difficult to overcome, even if a plant variety satisfies the requirements under both statutory sections, a patent examiner may issue a double patenting rejection.¹⁹² However, a non-statutory double patenting rejection may be overcome by a filing a terminal disclaimer.¹⁹³ A terminal disclaimer has the effect of allowing both patents to be issued and enforceable so long as they are held by a common owner and expire at the same time.¹⁹⁴ This prevents separate owners from enforcing the same patent right, and prevents an unjustified term extension by allowing the same owner to obtain a second patent for an obvious variant of the invention.¹⁹⁵

Thus, it appears that when the overlap occurs within one type of federal regulation, for instance between the PPA and utility patents for plants, there are sufficient limitations provided.¹⁹⁶ These limitations are judicially

188. See *J.E.M. Ag Supply*, 534 U.S. at 141 (providing no indication of the extent of overlap).

189. See *Pitney-Bowes*, 517 F. Supp. at 61 (indicating that patent law preempts trade secret law as long as the nature of the trade secret does not impinge upon patent law).

190. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186, 197 (1894) (providing if two claimed inventions are identical in scope, the proper rejection is under 35 U.S.C. § 101 because an inventor is entitled to a single patent for his invention); 35 U.S.C. § 101 (stating “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore. . . .”) (emphasis added).

191. See MAGDALEN Y.C. GREENLIEF, U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1601 (stating that inventions may be claimed under both the utility patent statute and under the plant patent statute).

192. See *id.* (stating that a double patenting rejection may be issued for inventions claimed under both the utility patent statute and under the plant patent statute).

193. *Id.* at §§ 1601, 804.02; see 37 C.F.R. § 1.321(c) (2004) (providing the requirements for filing a terminal disclaimer).

194. 37 C.F.R. § 1.321(c)(3).

195. *In re Berg*, 140 F.3d 1428, 1431-32 (Fed. Cir. 1998).

196. See *id.* at 1431 (providing that a double-patenting rejection prevents patent right extension beyond its statutory limit).

created and include the double patenting rejection.¹⁹⁷ Therefore, it seems clear that federal statutes for each respective type of intellectual property right has sufficient built-in limitations on overlap.¹⁹⁸

Based on the patent statutes and rules, it is clear that the overlap between a plant patent and a utility patent are well accounted for. However, this is not the case for the overlap between the PVPA and the available patents for plants.¹⁹⁹

B. LIMITATIONS ON THE PVPA AND PATENT OVERLAP

While the Supreme Court made clear that sexually reproduced plants may be covered by both a PVP certificate and utility patent, the Court failed to establish any limitations on this overlap.²⁰⁰ The Court has indicated that the overlap is universal and complete; where both statutes' requirements are satisfied, both forms of protection may exist.²⁰¹ This is probably best explained by the analogous requirements between the two statutes, as well as the different application requirements and rights provided.²⁰² The PVPA requirements are also similar to the requirements to obtain a plant patent. Like the two patent statutes, the PVPA has a provision that prevents multiple PVP certificates from being issued on the same plant variety.²⁰³ The analogous statute provides that "[i]f [two] or more applicants submit applications on the same effective filing date for varieties that cannot be clearly distinguished from one another . . . the applicant who first complies with all requirements of this Act shall be entitled to a certificate of plant variety protection"²⁰⁴

197. 37 C.F.R. § 1.321(c).

198. See 7 U.S.C. § 2402 (2000) (requiring a plant be "new," "distinct," "uniform," and "stable" to qualify for a PVP certificate); 35 U.S.C. § 102 (2000) (providing statutory bars for inventions); 37 C.F.R. § 1.321 (providing for the use of disclaimers to eliminate potential overlap).

199. See *J.E.M. Ag Supply Inc. v. Pioneer Hi-Bred Int'l Inc.*, 534 U.S. 124, 144 (2001) (indicating that the two statutes may overlap as long as each reaches some distinct cases, but not discussing rules that limit the overlap).

200. *Id.*

201. See *Monsanto Co. v. McFarling*, 302 F.3d 1291, 1299 (Fed. Cir. 2002) (stating that "utility patents are available to plants and seeds that meet the requirements of patentability, independent of and *in addition to rights under the PVPA*") (citation omitted) (emphasis added).

202. See 35 U.S.C. §§ 101, 102, 112 (2000) (requiring invention to be new, useful, novel, as well as requiring a written description and deposit of seed); 7 U.S.C. §§ 2402, 2422 (2000) (requiring invention to be new, distinct, have a description, and declaration that a deposit of seed will be deposited in public repository).

203. 7 U.S.C. § 2402(b).

204. 7 U.S.C. § 2402(b)(1).

However, neither statute describes what should happen when an inventor obtains both a PVP certificate and a patent.²⁰⁵ This would allow an inventor to obtain protection under both the PVPA and patent laws and subsequently assign away one of those intellectual property rights.²⁰⁶ Thus, separate owners would be able to enforce the same intellectual property right against an infringing third party.²⁰⁷ The court has addressed this issue in the patent law context, and the possibility of harassment prompted the terminal disclaimer provision requiring termination of rights upon the alienation of one of the patents.²⁰⁸ This harassment by multiple assignees is one problem that the double patenting rejection and terminal disclaimer provisions are meant to prevent.²⁰⁹

The other purpose of the obviousness-type double patenting rejection and terminal disclaimer is to prevent an unjustified term extension for two patents relating obvious variants of one invention.²¹⁰ While it is possible for rights provided by the PVPA to outlast rights from a patent to the same plant variety,²¹¹ it seems clear that this is different than the unjustified term extension the Court was worried about with regard to patents.²¹² Because the “requirements for, and coverage of, utility patents and PVP certificates” are different, the Court in *J.E.M.* seemed unconcerned with the possibility of dual protection and enforcement of these intellectual property rights.²¹³ In short, the owner of both a PVP certificate and a patent for the same plant variety would not be receiving a term extension past the expiration of the patent, but would merely be left with the lesser rights provided by the PVP certificate.²¹⁴

205. See 7 U.S.C. §§ 2401-2404 (2000) (providing requirements for obtaining a PVP certificate but not indicating a limitation on concurrent patent ownership); 35 U.S.C. §§ 161-164 (2000) (providing requirements for grant of plant patent but not indicating any limitation on concurrent PVP certificate ownership).

206. See *In re Van Ornum*, 686 F.2d 937, 944 (C.C.P.A. 1982) (providing that ownership of two different intellectual property rights by the same person may be divided by transfers and assignments).

207. *Id.* at 945.

208. See *id.* at 944 (stating “[t]he possibility of multiple suits against an infringer by assignees of related patents has long been recognized as one of the concerns behind the doctrine of double patenting”).

209. *In re Berg*, 140 F.3d 1428, 1431-32 (Fed. Cir. 1998); *In re Van Ornum*, 686 F.2d at 947.

210. *In re Berg*, 140 F.3d at 1431-32.

211. See CHISUM, *supra*, note 33, 1-1 § 1.05[2][d][ii]; 7 U.S.C. § 2483(b)(1)(A)-(B) (2000) (providing that the term for plant variety protection for trees and vines under the PVPA is twenty-five years); 35 U.S.C. 154(a)(2) (2000) (providing that the term for a patent is twenty years).

212. See *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 142 (2001) (indicating that because of the different requirements and levels of protection provided by patents and PVP certificates, the concurrent protection of the same invention is allowable).

213. *Id.* at 142.

214. *Id.* at 144.

When the overlap occurs between two distinct federal regulations such as the PVPA and the patent statutes, the limitations on the concurrent use of intellectual property rights are not as clear.²¹⁵ At least one limitation should be created for when a PVP certificate and a patent protect the same plant variety. This limitation should be similar to the double patenting rejection utilized in patent law, thereby requiring the termination of the intellectual property rights upon the separation of a commonly owned PVP certificate and patent covering the same plant variety.²¹⁶ Absent this requirement, the owner of a PVP certificate and a patent on the same plant variety may assign the rights of one while maintaining the rights to the other.²¹⁷ The creation of this limitation would prevent the harassing situation where an infringer would be liable to two separate entities.²¹⁸

C. LIMITATIONS ON THE PATENT AND TRADE SECRET OVERLAP

Unlike the overlap between two patents covering the same invention, the courts have not hesitated to give effect to complementary trade secrets and patents.²¹⁹ Therefore, it can be reasoned that the inherent limitations on the overlap between trade secrets and patents are sufficient to prevent the exploitation of these intellectual property rights.²²⁰ These inherent limitations may be illustrated by analyzing the possibility of a patent term extension through the use of a trade secret as well as the potential for harassment by separate owners of each type of intellectual property right.

While it could be argued that the use of trade secrets to complement patents is impermissible because the trade secret prevents full disclosure of the invention and could extend the intellectual property right beyond the term of the patent, this is not true.²²¹ The claimed subject matter of the patent will enter the public domain at the expiration of the patent, and with

215. See *Monsanto Co. v. McFarling*, 363 F.3d 1336, 1344 (Fed. Cir. 2004) (demonstrating the lack of clarity through the dispute that the PVPA right to save protected seeds is not extended to patent holders).

216. See *In re Van Ornum*, 686 F.2d 937, 944 (C.C.P.A. 1982) (illustrating the potential for harassment if multiple intellectual property rights are granted to one owner and one is subsequently transferred or assigned).

217. See *id.* at 945 (providing that absent a double patenting rejection, a holder of multiple patent rights may assign one patent right and maintain the other).

218. *Id.*

219. See *In re Hayes*, 982 F.2d 1527, 1539 (Fed. Cir. 1992) (indicating that a patent may be granted despite the disclosure of a structure in the written description that is maintained as a trade secret).

220. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 491-92 (1974) (stating that trade secret and patent protection can "peacefully coexist" and thereby indicating the sufficiency of inherent limitations).

221. See MILLS, REILEY & HIGHLEY, *supra* note 48, § 4:25 (providing that information may be maintained as a trade secret as long as it is not necessary to fulfill patent law requirements).

that expiration also passes the right to exclude.²²² The trade secret subject matter is independent from and mutually exclusive to the patent subject matter.²²³ Therefore, only the protection of the trade secret material continues, but the protection of the patented material does not.²²⁴ While the trade secret rights may continue, the public has the opportunity to utilize the previously patented information and reverse-engineer the trade secrets.²²⁵

Additionally, where one of the property rights is a trade secret, the potential for third party harassment from multiple owners of intellectual property rights covering the same invention is non-existent.²²⁶ Unlike with the overlap between the PVPA and patents, or between utility patents and plant patents, a trade secret can only cover a variation of the patented invention.²²⁷ If an invention is disclosed in a patent application, it is available to the public and cannot be a secret—therefore, any accompanying trade secret must be complementary.²²⁸ In short, as long as the patent requirements are satisfied, trade secrets may be used to complement the patent protection without the fear of improper term extensions or the harassment from multiple redundant lawsuits.²²⁹

D. LIMITATIONS ON THE PVPA AND TRADE SECRET OVERLAP

Similar to the judicial acceptance of overlap between patents and trade secrets, the courts have also been willing to recognize concurrent protection

222. 35 U.S.C. § 154 (2000).

223. *See Pitney-Bowes, Inc. v. Mestre* 517 F. Supp. 52, 61 (S.D. Fla. 1981) (stating that trade secret protection that is separate and distinct from federal law may have a “separate legal viability” that “might survive the expiration of a patent”).

224. *Id.*

225. *See Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1550 (Fed. Cir. 1994) (providing that the rights afforded by a patent no longer exist after the patent term expires).

226. MILLS, REILEY & HIGHLEY, *supra* note 48, § 4:25 (emphasis added) (providing that information not disclosed in a patent as well as improvements may constitute a *separate* invention).

227. *See* 35 U.S.C. § 112 (2000) (providing that the claim shall “particularly [point] out and distinctly [claim] the subject matter” regarded as the invention); MAGDALEN Y. C. GREENLIEF, U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2171(A)-(B) (2004) (providing that the claims define the metes and bounds of the invention, therefore only what is claimed is protected).

228. *See* 35 U.S.C. § 122 (2000) (providing that patent applications shall be published after eighteen months from their filing date, subject to certain exceptions).

229. *See* MILLS, REILEY & HIGHLEY, *supra* note 48, § 4:25 (providing that information may be maintained as a trade secret as long as it is not necessary to fulfill patent law requirements); *Pioneer Hi-Bred Int'l v. Holden Found.*, 35 F.3d 1226, 1236, 1242 (8th Cir. 1994) (providing that the PVPA does not preempt trade secret law and that public availability of seed does not negate trade secret status as long as measures were taken to preserve the secrecy of the invention).

of intellectual property through both a trade secret and a PVP certificate.²³⁰ At least one court bolstered that recognition with the fact that the Supreme Court already held that patent and trade secret protection can “peacefully coexist.”²³¹

Unlike a patent application, an application for a PVP certificate is maintained as confidential.²³² Although the application for a PVP certificate must contain a description of the novel plant,²³³ the plant itself may still be maintained as a trade secret thereby allowing concurrent PVPA and trade secret protection.²³⁴ Unlike trade secrets and patents operating in tandem, trade secret law may provide concurrent protection along with PVP certificates; protection in addition to that provided by the PVP certificate.²³⁵ As a result, it is possible for one person to have PVPA protection and trade secret protection for the same idea or information.²³⁶

Thus, any third person infringing upon a PVP certificate and a trade secret would be liable for two separate causes of action.²³⁷ This could potentially lead to third party harassment by multiple assignees similar to harassment avoided by the terminal disclaimer in the patent system.²³⁸ Despite the potential for harassment, the courts have remained unconcerned with the overlap.²³⁹

230. See *Pioneer Hi-Bred Int'l*, 35 F.3d at 1235-36 (providing that genetic makeup of seed protected by PVP certificate was also protected by trade secret law despite public availability of the seed).

231. *Id.* at 1243 (internal citation omitted).

232. 7 U.S.C. § 2426 (2000).

233. 7 U.S.C. § 2422 (2000).

234. See *Pioneer Hi-Bred Int'l*, 35 F.3d at 1236 (providing that genetic makeup of seed protected by PVP certificate was also protected by trade secret law despite public availability of the seed).

235. See *id.* at 1236, 1242 (providing that the PVPA does not preempt trade secret law and that public availability of seed does not negate trade secret status as long as measures were taken to preserve the secrecy of the invention).

236. *Id.*

237. *Id.* at 1242-43.

238. See *In re Van Ornum*, 686 F.2d 937, 944 (C.C.P.A. 1982) (providing that ownership of two intellectual property rights may be transferred or assigned which could result in multiple suits against an infringer).

239. See *id.* at 1243 (holding that the PVPA did not preempt state trade secret law); see also *J.E.M. Ag Supply v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 144 (2001) (providing that patent policy is not disturbed by trade secrets as a form of incentive to invention and further noting that the PVPA provides a lesser form of patent-like protection where the stricter patent requirements cannot be met).

VI. CONCLUSION

The single pervasive policy concern throughout all of the intellectual property rights discussed is to create an incentive for inventors to invent.²⁴⁰ New invention helps to grow the economy and push the boundaries of technology.²⁴¹ Despite the conflict between the patent and PVPA policy of disclosure and the trade secret policy of secrecy, all three intellectual property rights serve this greater policy interest.²⁴² As a result, it follows that the existence and use of multiple protection also furthers the policy goal by obtaining the benefits available from all three types of protection—essentially providing the best of all types.

Based on the existing case law, it is apparent that no external limits on dual protection currently exist.²⁴³ The lack of limits on dual protection is very important to companies seeking to protect their intellectual property rights because it allows for the creation of a synergistic intellectual property portfolio.²⁴⁴ In turn, it also creates different avenues to pursue potential infringers.²⁴⁵ In other words, if one type of intellectual property right is invalidated, the owner may act to enforce another intellectual property right. Based on the complementary nature of the intellectual property rights, and the boundaries inherently created in each, external limitations are often not required.²⁴⁶ However, should the opportunity arise, a legislative or

240. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-482 (1974) (providing that the Constitutional provision allowing Congress to “promote the Progress of Science and the useful Arts” is meant to create an incentive for inventors to invent and the encouragement of invention is likewise a “broadly stated polic[y] behind trade secret law”).

241. *Id.* at 480.

242. See *id.*, at 480-82 (providing that the Constitutional provision allowing Congress to “promote the Progress of Science and the useful Arts” is meant to create an incentive for inventors to invent and the encouragement of invention is likewise a “broadly stated polic[y] behind trade secret law”); see also *J.E.M. Ag Supply v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 144 (2001) (noting that “the patent policy of encouraging invention is not disturbed by the existence of another form of incentive to invention”).

243. See *J.E.M. Ag Supply*, 534 U.S. at 144 (providing that “dual protection” via patents and the PVPA may exist so long as each statute “reaches some distinct cases”); see also *Pioneer Hi-Bred Int’l v. Holden Found.*, 35 F.3d 1226, 1242-43 (8th Cir. 1994) (holding that the PVPA does not preempt state trade secret law as applied to sexually reproducing plants).

244. Katherine C. Spelman & John J. Moss, *The Intellectual Property Inventory: Why Do It?* 429 CONDUCTING INTELL. PROP. AUDITS 257 (Feb. 1996).

245. See e.g. *J.E.M. Ag Supply*, 534 U.S. at 144 (providing that “dual protection” via patents and the PVPA may exist so long as each statute “reaches some distinct cases” thereby allowing different methods to pursue infringer).

246. See *id.* (providing that “dual protection” via patents and the PVPA may exist as long as each statute “reaches some distinct cases” without providing external limitations and thereby indicating that inherent limitations were sufficient); see also *Kewanee*, 416 U.S. 480-82 (stating that even partial preemption is inappropriate and that trade secrets and patents may coexist but failing to provide limitations on the coexistence).

judicially created limitation may be necessary for separate ownership of a PVP certificate and patent covering the same plant variety.

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