IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA

BAYER CROPSCIENCE AG, **BAYER CROPSCIENCE NV** **Plaintiffs,** **v.** **DOW AGROSCIENCES LLC,** **MYCOGEN PLANT SCIENCE, INC.,** **AGRIGENETICS, INC. d/b/a** **MYCOGEN SEEDS, LLC, AND** **PHYTOGEN SEED COMPANY, LLC** **Defendant.**	**C.A. No.** 2:12cv47 (RAJ/TEM) **TRIAL BY JURY DEMANDED**

COMPLAINT

JURISDICTION AND VENUE

1. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code. Jurisdiction and venue are based on 28 U.S.C. §§1331, 1338(a), 1391(b), 1400(b), 2201, 2202, and 35 U.S.C. §271.

2. This Court has subject matter jurisdiction over the Plaintiffs' federal patent claims. This Court has personal jurisdiction over the defendants and venue is proper in this Court by virtue of the facts pleaded herein.

3. There has been and is now an actual controversy between Plaintiffs Bayer CropScience AG and Bayer CropScience NV (collectively "Bayer") and Defendants Dow AgroSciences LLC ("DAS"), Mycogen Plant Science, Inc. ("MPS"), Agrigenetics, Inc.

("Agrigenetics") d/b/a/ Mycogen Seeds, LLC ("Mycogen"), and PhytoGen Seed Company, LLC ("PhytoGen") as to whether the defendants have actively infringed and/or induced and/or contributed and will continue to actively infringe and/or induce and/or contribute to the infringement of certain claims of United States Patents 5,561,236 ("the '236 patent"), 5,646,024 ("the '024 patent"), 5,648,477 ("the '477 patent"), and 7,112,665 ("the '665 Patent").

THE PARTIES

4. Plaintiff Bayer CropScience AG is a company, organized and existing under the laws of Germany, having its principal place of business at Alfred-Nobel-Strasse 50 D-40789, Monheim am Rhein, Germany.

5. Plaintiff Bayer CropScience NV is a company, organized and existing under the laws of Belgium, having its principal place of business at J.E. Mommaertslaan 14, 1831 Diegem, Belgium.

6. On information and belief, DAS is a United States entity, organized and existing under the laws of Delaware, having its headquarters and principal place of business at 9330 Zionsville Road, Indianapolis, IN 46268.

7. On information and belief, MPS is a United States entity, organized and existing under the laws of Delaware, having its headquarters and principal place of business at 9330 Zionsville Road, Indianapolis, IN 46268. On information and belief, MPS is a wholly-owned subsidiary of DAS.

8. On information and belief, Agrigenetics is a United States entity, organized and existing under the laws of Delaware, having its headquarters and principal place

of business at 9330 Zionsville Road, Indianapolis, IN 46268. On information and belief, Agrigenetics does business as Mycogen and is a wholly-owned subsidiary of DAS.

9. On information and belief, PhytoGen is a United States entity, organized and existing under the laws of Delaware, having its headquarters and principal place of business at 9330 Zionsville Road, Indianapolis, IN 46268. On information and belief, PhytoGen is a joint venture between Mycogen and the J.G. Boswell Company.

10. On information and belief, DAS, itself and/or through MPS, Agrigenetics, Mycogen and PhytoGen, develops, manufactures, uses, sells and/or offers for sale vectors used to make certain plants, seeds of certain plants, and plants grown from such seeds, containing a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome, which embodies the technologies claimed in, and which infringes, claims 8, 9 and 12-17 of the '236 patent; claims 15 and 16 of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent.

11. On information and belief, MPS develops, manufactures, uses, sells and/or offers for sale vectors used to make certain plants, seeds of certain plants, or plants grown from such seeds, containing a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome, which embodies the technologies claimed in, and which infringes, claims 8, 9 and 12-17 of the '236 patent; claims 15 and 16 of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent.

12. On information and belief, Mycogen develops, manufactures, uses, sells and/or offers for sale vectors used to make certain plants, seeds of certain plants, or plants grown from such seeds, containing a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome, which embodies the technologies

claimed in, and which infringes, one or more of claims 8, 9 and 12-17 of the '236 patent; claims 15 and 16 of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent.

13. On information and belief, PhytoGen develops, manufactures, uses, sells and/or offers for sale vectors used to make certain plants, seeds of certain dicotyledonous plants, or plants grown from such seeds, containing a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome, which embodies the technologies claimed in, and which infringes, one or more of claims 8, 9 and 12-17 of the '236 patent; claims 15 and 16 of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent.

14. On information and belief the defendants regularly transact business or use real property in this judicial district, and have continuous and systematic contacts with this judicial district.

15. On information and belief, DAS has conducted, or has had conducted on its behalf, field trials of plants grown from seeds sold under the Mycogen Seeds and PhytoGen brands in this judicial district, which seeds and plants contain a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome, and which infringe certain claims of the '236 and/or '665 patents.

16. On information and belief, the defendants have developed, manufactured, offered for sale, sold, and/or distributed for commercial purposes, transgenic seeds and/or plants in this judicial district that contain in the genome a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity, and were made using a gene,

vector and a process which infringes certain claims of the '024, '477 and/or '665 patents, respectively.

17. On information and belief, the defendants have transacted business in this judicial district by selling plant seeds and/or plants that defendants transformed with a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity. On information and belief, defendants also have used real property in this judicial district to conduct field trials of plants transformed with a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity.

COUNT I: THE '236 PATENT

18. Plaintiffs reallege paragraphs 1-17 above, as if set forth specifically here.

19. The '236 patent, entitled "Genetically Engineered Plant Cells and Plants Exhibiting Resistance to Glutamine Synthase Inhibitors, DNA Fragments and Recombinants for Use in the Production of Said Cells and Plants," issued on October 1, 1996 in the names of the inventors Jan Leemans, Johan Botterman; Marc de Block, Charles Thompson, and Rao Mouva. Exhibit A.

20. The '236 patent, on its face, is assigned to Bayer BioScience NV and Biogen, Inc. Bayer BioScience NV enjoys exclusive rights under the '236 patent, including the rights to enforce and defend the '236 patent at its sole discretion.

21. On January 1, 2012, Bayer BioScience NV merged into Bayer CropScience NV. Accordingly, Bayer CropScience NV currently holds legal title in and to the '236 patent.

22. Until recently, DAS enjoyed a non-exclusive license to the '236 patent under a 1992 license Agreement between Hoechst Aktiengesellschaft (now Bayer CropScience AG) and Lubrizol Genetics, Inc. (now DAS). That license has now been terminated. Accordingly, DAS and the other defendants are not licensed to use the invention covered by claims 8, 9 and 12-17 of the '236 patent.

23. Claims 8, 9 and 12-17 of the '236 patent have been previously held to be not invalid by the United States District Court for the District of Connecticut in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 175 F.Supp.2d 246, 265 (2001), affirmed by the United States Court of Appeals for the Federal Circuit in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 315 F.3d 1335, 1339 (2003).

24. On information and belief, defendants have infringed claims 8, 9 and 12-17 of the '236 patent under 35 U.S.C. §271(a) and/or (b) and/or (c) at least by engaging in the development, manufacture, use, sale and/or offer for sale, or distribution for commercial purposes, transgenic dicotyledonous plants and/or seeds that contain cells having a DNA encoding a polypeptide having phosphinothricin acetyltransferase activity stably integrated into the genome.

25. On information and belief, DAS, by itself and/or through affiliates and/or third parties including MPS, Mycogen and PhytoGen, has developed, manufactured, used, sold, and/or offered for sale, or distributed for commercial purposes, transgenic dicotyledonous plants and/or seeds, which results in the direct infringement of claims 8, 9 and 12-17 of the '236 patent.

26. On information and belief, these acts of direct infringement by MPS, Mycogen and PhytoGen occur at DAS's active behest and with DAS's intent, knowledge, and

encouragement. On information and belief, DAS actively encourages, aids, and abets these acts of direct infringement with knowledge that it is in contravention of Bayer's rights under claims 8, 9 and 12-17 of the '236 patent.

27. On information and belief, defendants' develop, manufacture, use, sale and/or offer for sale, or distribution for commercial purposes, of transgenic dicotyledonous plants and/or seeds directly infringes, induces and contributes to the infringement of, and, absent the relief sought herein, will continue to infringe, induce, and contribute to the infringement of claims 8-9 and 12-17 of the '236 patent.

COUNT II: THE '024 PATENT

28. Plaintiffs reallege paragraphs 1-27 above, as if set forth specifically here.

29. The '024 patent, entitled "Genetically Engineered Plant Cells and Plants Exhibiting Resistance to Glutamine Synthase Inhibitors, DNA Fragments and Recombinants for Use in the Production of Said Cells and Plants," issued on July 8, 1997, in the names of the inventors Jan Leemans, Johan Botterman; Marc de Block, Charles Thompson, and Rao Mouva. The '024 patent is a divisional of the '236 patent. Exhibit B.

30. The '024 patent, on its face, is assigned to Bayer BioScience NV and Biogen, Inc. Bayer BioScience NV enjoys exclusive rights under the '024 patent, including the rights to enforce and defend the '024 patent at its sole discretion.

31. On January 1, 2012, Bayer BioScience NV merged into Bayer CropScience NV. Accordingly, Bayer CropScience NV currently holds legal title in and to the '024 patent.

32. Until recently, DAS enjoyed a non-exclusive license to the '024 patent under a 1992 license Agreement between Hoechst Aktiengesellschaft (now Bayer CropScience AG) and Lubrizol Genetics, Inc. (now DAS). That license has now been terminated. Accordingly, DAS and the other defendants are not licensed to use the invention claimed in claims 15 and 16 of the '024 patent.

33. Claims 15 and 16 of the '024 patent are similar to claims 8, 9 and 12-17 of the '236 patent, which were held to be not invalid by the United States District Court for the District of Connecticut in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 175 F.Supp.2d 246, 265 (2001), affirmed by the United States Court of Appeals for the Federal Circuit in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 315 F.3d 1335, 1339 (2003).

34. On information and belief, defendants have infringed at least claims 15 and 16 (insofar as it depends from claim 15) of the '024 patent under 35 U.S.C. §271(a) and/or (b) and/or (c) at least by using the claimed methods to develop, manufacture, and use transgenic dicotyledonous plant cells that are tolerant or resistant to the herbicidal activity of a glutamine synthase inhibitor by virtue of containing a DNA which encodes a protein with acetyltransferase activity to a glutamine synthase inhibitor. The method recited in claim 15 has no commercial use except for the manufacture and use of transgenic dicotyledonous plant cells, which cells have no commercial use except in connection with the manufacture of transgenic dicotyledonous plants of claim 16, of which a primary commercial use is in agriculture to provide farmers with seeds and corresponding crop plants that are resistant to a glutamine synthase inhibitor, such as phosphinothricin, by virtue of containing a DNA fragment encoding a protein with acetyltransferase activity against such glutamine synthase inhibitor.

35. On information and belief, DAS, by itself and/or through affiliates and/or third parties, including MPS, Mycogen and PhytoGen, has developed, manufactured, and/or used transgenic dicotyledonous plant cells and/or plants using the methods recited in claims 15 and 16 of the '024 patent, resulting in the direct infringement of the '024 patent.

36. On information and belief, acts of direct infringement by MPS, Mycogen and PhytoGen occur at DAS's active behest and with DAS's intent, knowledge, and encouragement. On information and belief, DAS actively encourages, aids, and abets these acts of direct infringement with knowledge that it is in contravention of Bayer's rights under claims 15 and 16 of the '024 patent.

37. On information and belief, defendants' use of the methods recited in claims 15 and 16 of the '024 patent, by itself and/or through affiliates or third parties, in order to generate transgenic dicotyledonous plant cells and/or plants, directly infringes, induces and contributes to the infringement of, and, absent the relief sought herein, will continue to infringe, induce, and contribute to the infringement of claims 15 and 16 of the '024 patent.

COUNT III: THE '477 PATENT

38. Plaintiffs reallege paragraphs 1-37 above, as if set forth specifically here.

39. The '477 patent, entitled "Genetically Engineered Plant Cells and Plants Exhibiting Resistance to Glutamine Synthase Inhibitors, DNA Fragments and Recombinants for Use in the Production of Said Cells and Plants," issued on July 15, 1997 in the names of the inventors Jan Leemans, Johan Botterman; Charles Thompson, and Rao Mouva. Exhibit C.

40. The '477 patent, on its face, is assigned to Bayer BioScience N.V and Biogen, Inc. Bayer BioScience NV ("Bayer") enjoys exclusive rights under the '477 patent, including the rights to enforce and defend the '477 patent at its sole discretion.

41. On January 1, 2012, Bayer BioScience NV merged into Bayer CropScience NV. Accordingly, Bayer CropScience NV currently holds legal title in and to the '477 patent.

42. Until recently, DAS enjoyed a non-exclusive license to the '477 patent under a 1992 license Agreement between Hoechst Aktiengesellschaft (now Bayer CropScience AG) and Lubrizol Genetics, Inc. (now DAS). That license has now been terminated. Accordingly, DAS and the other defendants are not licensed to use the invention claimed in claims 15, 16 and 19 of the '477 patent.

43. Claims 15, 16 and 19 of the '477 patent are similar to claims 8, 9 and 12-17 of the '236 patent, which were held to be not invalid by the United States District Court for the District of Connecticut in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 175 F.Supp.2d 246, 265 (2001), affirmed by the United States Court of Appeals for the Federal Circuit in *Plant Genetic Systems, NV v. Dekalb Genetics, Inc.*, 315 F.3d 1335, 1339 (2003).

44. On information and belief, defendants have infringed claims 15, 16 and 19 of the '477 patent under 35 U.S.C. §271(a) and/or (b) and/or (c) at least by engaging in the development, manufacture, and use of the vector claimed in the '477 patent. Said vector, which contains a gene encoding a polypeptide having acetyltransferase activity on a glutamine synthase inhibitor, has no use except in connection with generating transgenic dicotyledonous plants and/or seeds that are resistant to such glutamine synthase inhibitor.

45. On information and belief, DAS, by itself and/or through affiliates and/or third parties including MPS, Mycogen and PhytoGen, has developed, manufactured, and used the vector of claims 15, 16 and 19 of the '477 patent in order to generate its transgenic dicotyledonous plants and/or seeds that are resistant to such glutamine synthase inhibitor, resulting in the direct infringement of the '477 patent.

46. On information and belief, these acts of direct infringement by MPS, Mycogen and PhytoGen occur at DAS's active behest and with DAS's intent, knowledge, and encouragement. On information and belief, DAS actively encourages, aids, and abets these acts of direct infringement with knowledge that it is in contravention of Bayer's rights under claims 15, 16, and 19 of the '477 patent.

47. On information and belief, the development, manufacture, and use of the vector of claims 15, 16, and 19 of the '477 patent, by DAS and/or its affiliates and/or third parties, to generate dicotyledonous transgenic plants and/or seeds, directly infringes, induces and contributes to the infringement of, and, absent the relief sought herein, will continue to infringe, induce, and contribute to the infringement of claims 15, 16 and 19 of the '477 patent.

COUNT IV: THE '665 PATENT

48. Plaintiffs reallege paragraphs 1-47, above, as if set forth specifically here.

49. The '665 patent, entitled "Genetically Engineered Plant Cells and Plants Exhibiting Resistance to Glutamine Synthase Inhibitors, DNA Fragments and Recombinants for Use in the Production of Said Cells and Plants," issued on September 26, 2006, in the names of

the inventors Jan Leemans, Johan Botterman; Marc de Block, Charles Thompson, and Rao Mouva. Exhibit D.

50. The '665 patent, on its face, is assigned to Bayer BioScience N.V and Biogen, Inc. Bayer BioScience NV ("Bayer") enjoys exclusive rights under the '477 patent, including the rights to enforce and defend the '665 patent at its sole discretion.

51. On January 1, 2012, Bayer BioScience NV merged into Bayer CropScience NV. Accordingly, Bayer CropScience NV currently holds legal title in and to the '665 patent.

52. Until recently, DAS enjoyed a non-exclusive license to the '665 patent under a 1992 license Agreement between Hoechst Aktiengesellschaft (now Bayer CropScience AG) and Lubrizol Genetics, Inc. (now DAS). That license has now been terminated. Accordingly, DAS and the other defendants are not licensed to use the invention claimed in claim 1 of the '665 patent.

53. On information and belief, defendants have infringed claim 1 of the '665 patent under 35 U.S.C. §271(a) and/or (b) and/or (c) at least by engaging in the development, manufacture, use, sale and/or offer for sale, or distribution for commercial purposes, transgenic plants and/or seeds that contain an isolated DNA encoding a protein having phosphinothricin acetyltransferase activity. Said isolated DNA has no commercial use except in the manufacture and use of transgenic plants and/or seeds, resulting in the direct infringement of claim 1 of the '665 patent.

54. On information and belief, DAS, itself or through affiliates or third parties, including MPS, Mycogen and PhytoGen, has developed, manufactured, used, sold, offered for sale, or distributed for commercial purposes, transgenic plants and/or seeds

containing an isolated DNA encoding a protein having phosphinothricin acetyltransferase activity, which results in the direct infringement of claim 1 of the '665 patent.

55. On information and belief, these acts of direct infringement by MPS, Mycogen and PhytoGen occur at DAS's active behest and with DAS's intent, knowledge, and encouragement. On information and belief, DAS actively encourages, aids, and abets these acts of direct infringement with knowledge that it is in contravention of Bayer's rights under the '665 patent.

56. On information and belief, the development, manufacture, use and sale and offer for sale, or distribution for commercial purposes, of DAS's transgenic plants and/or seeds containing the isolated DNA encoding a protein having phosphinothricin acetyltransferase activity, induces and contributes to the infringement of, and, absent the relief sought herein, will continue to infringe, induce, and contribute to the infringement of claim 1 of the '665 patent.

WHEREFORE, Bayer respectfully requests the following relief:

(a) A judgment declaring that the claim 8, 9 and 12-17 of the '236 patent; claims 15 and 16 (insofar as it depends from claim 15) of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent, are infringed by the defendants' continued development, manufacture, use, offer to sell and sale of transgenic plants in the United States, and the defendants' preparations for same, prior to the expiration of such patents;

(b) A permanent injunction against any infringement by the defendants of claims 8, 9 and 12-17 of the '236 patent; claims 15 and 16 of the '024 patent; claims 15, 16 and 19 of the '477 patent; and claim 1 of the '665 patent.

(c) A judgment that the defendants' conduct is willful;

(d) A judgment that the defendants' conduct is exceptional;

(e) Attorneys' fees in this action under 35 U.S.C. §285;

(f) Damages adequate to compensate for the infringement and enhanced damages under 35 U.S.C. §284;

(g) Costs and expenses in this action; and

(h) Such other relief as this Court may deem proper.

A trial by jury is demanded.

/s/ Robert J. Koch

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