

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO  
DENVER DIVISION**

VDF FUTURECEUTICALS, INC.,

Plaintiff,

v.

APPLIED FOOD SCIENCES, INC.

Defendant.

Case No.

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff VDF FutureCeuticals, Inc. (“FC” or “Plaintiff”), by its undersigned attorneys, for its complaint against Applied Food Sciences, Inc. (“AFS” or “Defendant”), alleges as follows:

**THE PARTIES**

1. FC is an Illinois corporation having its principal place of business at 2692 N. State Route 1-17, Momence, IL 60954.
2. Defendant AFS is a Delaware corporation and has places of business at 4383 Apple Ct., Boulder, CO 80301 and 350 Terry Street, Suite 200, Longmont, CO 80501.

**JURISDICTION AND VENUE**

3. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101, *et seq.*
4. AFS is conducting business on a systematic and continuous basis within the United States, including this State and District. Personal jurisdiction exists over AFS because of AFS’ presence in this state, because it has availed itself of the rights and benefits of the laws of

Colorado, and it has marketed, sold, and/or offered for sale the accused AFS Extract in Colorado, and/or derived substantial revenue from the sales of the AFS Extract in Colorado, and it has systematic and continuous business contacts with Colorado, including by registering to do business in Colorado (ID No. 20111364985), maintaining an office or other physical locations in Colorado, and having multiple employees in Colorado, including its Director of Marketing, its National Sales Manager, and its VP of Innovation.

5. Venue is proper in this District pursuant to 28 U.S.C. 1400(b) because AFS has committed acts of infringement in this District and AFS has a regular and established place of business in this District, including at 4383 Apple Ct., Boulder, CO 80301, 350 Terry Street, Suite 200, Longmont, CO 80501, and/or at other locations of the defendant through which it conducts business in this District, including locations used by AFS through its CEO, its Director of Marketing, its National Sales Manager, and its VP of Innovation.

### **COFFEE CHERRIES**

6. *Coffea* is a genus of flowering plants in the *rubiaceae* family. Coffee plants produce coffee cherries, also known as coffee fruit. The coffee cherry is best known for the coffee beans contained inside, which are used to produce the beverage commonly known as “coffee.”

7. Coffee beans are surrounded by outer protective layers that together make up the coffee cherry. These outer layers are known as the pulp, mucilage, and hull.

8. After they are removed from the coffee plant, coffee cherries, and especially the outer protective layers, rapidly spoil and produce hazardous substances known as mycotoxins.

9. Mycotoxins are poisonous to humans if consumed in sufficient quantities. Indeed, the consumption of too many mycotoxins may lead to severe health complications, or even death.

10. Traditionally, in part because of the tendency of the coffee cherry to spoil, the pulp, mucilage, and hull of the coffee cherry were discarded as waste byproducts of the coffee harvest.

11. Though historically treated as waste byproducts, the pulp, mucilage, and hull of the coffee cherry have several beneficial properties, including high concentrations of antioxidants.

12. But, these beneficial properties of the coffee cherry cannot be realized without a process that ensures safe levels of mycotoxins. And, prior to FC's patented innovations, no one had successfully processed and utilized the coffee cherry to make food products and extracts for human consumption on a commercial scale.

13. The inventors of the Patents-In-Suit invented and disclosed previously undiscovered ways to produce extracts and food products from coffee cherries having low levels of mycotoxins.

14. FC's innovations paved the way for a new product category of food and beverages founded on the natural nutrients contained in coffee cherries. Through these groundbreaking discoveries in the field, FC created a viable commercial use for what was traditionally considered by the coffee industry to be a waste byproduct of the coffee cherry harvest.

### **FC'S BUSINESS AND PATENTED PRODUCTS**

15. FC is a family-owned and operated business that grew out of a farming business dating back more than a century. FC was incorporated in 1999 to focus on biological and technological innovations for the food and functional food industries. FC has developed a variety of products, including probiotic, fruit and vegetable-based antioxidants, and heart and metabolism-healthy, grain-based materials.

16. FC's business model is to invent, develop, and research products featuring standardized, scientifically-validated activities for human health, and to obtain intellectual property protection for its products. FC partners with other businesses, usually in exclusive dealing arrangements, which include supply of FC's products as well as licensing of FC's related intellectual property, including patents and trademarks. FC partners with manufacturers, marketers, and other business-to-business customers, and supplies ingredients to major food, functional food, and dietary supplement manufacturers worldwide.

17. In the late 1990s, FC began focusing on coffee cherries and the potential for creating a new line of healthy products using coffee cherries. FC spent significant time and resources developing the technology necessary to utilize coffee fruit without mycotoxin contamination and, on April 16, 2003, filed two separate international patent applications focusing on coffee cherry products and methods of manufacturing. After years of diligent prosecution, FC's first patents issued, claiming methods for making coffee cherry products and low-mycotoxin coffee cherry products, as well as coffee cherry products manufactured by those methods.

18. Prior to the inventions described and claimed in FC's patents, coffee cherries, other than the bean itself, had generally "been viewed as materials which [we]re either unuseable, hazardous, or of negligible value." Exhibit 1 ('205 Patent at 2:20-22). This is due, in part, to the fact that methods for removing mycotoxins at a commercial scale were costly, impractical, or left undesirable byproducts in the end product.

19. FC developed coffee cherry products based on its inventions. FC's patents and products long pre-date AFS' entry into this market. In 2005, FC launched its CoffeeBerry® line of coffee cherry ingredients and products through promotional materials and a showing at the

International Food and Technology Show in New Orleans. FC continued to develop other products for its CoffeeBerry® line of coffee cherry ingredients, and invested in scientific research investigating the health benefits of these products.

20. FC entered into license agreements to partner with companies to further develop and market FC's coffee cherry products.

### **THE PATENTS IN SUIT**

21. United States Patent No. 7,807,205 (“the ’205 Patent”), entitled “Methods for Coffee Cherry Products,” was duly and legally issued on October 5, 2010. FC is the assignee and owner of all right, title, and interest in and to the ’205 Patent, now and since the issuance of the patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the ’205 Patent is attached hereto as Exhibit 1.

22. On July 11, 2013, the United States Patent and Trademark Office (the “USPTO”) issued an Ex Parte Reexamination Certificate with respect to the ’205 Patent (“Certificate”). A true and correct copy of the Certificate is appended to Exhibit 1.

23. United States Patent No. 8,597,710 (“the ’710 Patent”), entitled “Low-Mycotoxin Coffee Cherry Products,” was duly and legally issued on December 3, 2013. FC is the assignee and owner of all right, title, and interest in and to the ’710 Patent, now and since the issuance of the patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the ’710 Patent is attached hereto as Exhibit 2.

24. United States Patent No. 8,603,564 (“the ’564 Patent”), entitled “Low-Mycotoxin Coffee Cherry Products,” was duly and legally issued on December 10, 2013. FC is the assignee and owner of all right, title, and interest in and to the ’564 Patent, now and since the issuance of

the Patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the '564 Patent is attached hereto as Exhibit 3.

25. United States Patent No. 7,815,959 (“the '959 Patent”), entitled “Low-Mycotoxin Coffee Cherry Products,” was duly and legally issued on October 19, 2010. FC is the assignee and owner of all right, title, and interest in and to the '959 Patent, now and since the issuance of the patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the '959 Patent is attached hereto as Exhibit 4.

26. On July 17, 2013, the United States Patent and Trademark Office (the “USPTO”) issued an Ex Parte Reexamination Certificate with respect to the '959 Patent (“Certificate”). A true and correct copy of the Certificate is appended to Exhibit 4.

27. United States Patent No. 7,754,263 (“the '263 Patent”), entitled “Methods For Coffee Cherry Products,” was duly and legally issued on July 13, 2010. FC is the assignee and owner of all right, title, and interest in and to the '263 Patent, now and since the issuance of the patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the '263 Patent is attached hereto as Exhibit 5.

28. On July 25, 2013, the United States Patent and Trademark Office (the “USPTO”) issued an Ex Parte Reexamination Certificate with respect to the '263 Patent (“Certificate”). A true and correct copy of the Certificate is appended to Exhibit 5.

29. United States Patent No. 8,603,563 (“the '563 Patent”), entitled “Methods For Coffee Cherry Products,” was duly and legally issued on December 10, 2013. FC is the assignee

and owner of all right, title, and interest in and to the '563 Patent, now and since the issuance of the patent, including the right to assert all causes of action arising under the patent and the right to any remedies for infringement of it. A true and correct copy of the '563 Patent is attached hereto as Exhibit 6.

30. The '205 Patent, '710 Patent, '564 Patent, '959 Patent, '263 Patent, and the '563 Patent are collectively referred to herein as the "Patents-In-Suit."

31. FC has complied with the marking requirement under 35 U.S.C. § 287, to the extent it is applicable to the Patents-In-Suit.

### **AFS' COFFEE CHERRY PRODUCT**

32. AFS makes, uses, sells, and offers to sell within the United States coffee fruit extracts, including its "CoffeeFruit Cascara Coffee Cherry Extract," and its "CoffeeNectar Cascara Superfruit" product (collectively, the "AFS Extract"). Exhibits 7 and 8. "CoffeeFruit Cascara Coffee Cherry Extract," and "CoffeeNectar Cascara Superfruit" appear to be different names for the same product.

33. The AFS Extract is intended for combination with food products, including beverages. *See* Exhibit 7 (asserting AFS Extract has "a wide range of product applications" including for use in "juices, snacks, candies, baked goods, and natural sodas").

34. AFS manufactures the AFS Extract using a plurality of whole coffee cherries or portions thereof. The "Specification Sheet" attached as Exhibit 10 is AFS' specification sheet for the AFS Extract and states that the product is an "extract of the outer coffee cherry skin, pulp and mucilage." *See also* Exhibit 9 (asserting that AFS "fully utilize[es] the coffee bean and its surrounding cherry").

35. The coffee fruit used by AFS in the manufacture of its AFS Extract exhibits mycotoxin levels that are below 20 ppb for total aflatoxins, below 5 ppm for total fumonisins,

below 5 ppm for total vomitoxins, and below 5 ppb for total ochratoxins. The AFS specification sheet reflects that the AFS Extract meets the following mycotoxin specification:

<p><b><u>Chemical:</u></b>  <b>Mycotoxin Screen:</b>  - Aflatoxin B1: &lt; 2 ppb  - Aflatoxin B2, G1, G2 or sum of aflatoxins: &lt; 5 ppb  - Ochratoxin A or B: &lt; 5 ppb  - Fumonisin: &lt; 100 ppb  <b>Pesticide Screen: Comply with the USP34-NF29:561 requirements</b></p>
---

Exhibit 10. The specification of “sum of aflatoxins: < 5 ppb” is “below 20 ppb” for total aflatoxins, as claimed in the Patents-In-Suit. The specification of “<5 ppb” for ochratoxin A or B is “below 5 ppb” for total ochratoxins, as claimed in the Patents-In-Suit. The specification of “< 100 ppb” for fumonisins is “below 5 ppm” for total fumonisins, as claimed in the Patents-In-Suit. The AFS specification does not provide a value for vomitoxins, but the brochure attached as Exhibit 9 indicates that the AFS Extract is “void of microbial contaminants.” Vomitoxins are a microbial contaminant. Because the AFS Extract is low in the specified mycotoxins and because AFS claims its extract is void of microbial contaminants, the AFS Extract also contains vomitoxins “below 5 ppm” as claimed in the Patents-In-Suit.

36. The coffee fruit used to make the AFS Extract also meets the claimed mycotoxin limitations and does so because it was dried under a protocol that limits microbial growth.

37. In manufacturing the AFS Extract, AFS comminutes the coffee fruit because breaking down coffee fruit facilitates the extraction process.

38. In manufacturing the AFS Extract, AFS uses a solvent. AFS asserts that the AFS Extract is an extract. The fact that AFS calls its product an “extract” evidences the use of a solvent because creating an extract involves bringing a solute (e.g., the comminuted coffee



cherries) in contact with a solvent for at least some time to allow the solvent-soluble compounds to transfer from the source material into the solvent.

39. In manufacturing the AFS Extract, AFS at least partially dehydrates the aqueous extract. As alleged above, AFS uses a solvent in its extraction process. In order to produce a powder extract, AFS removes the solvent through a dehydration process.

40. In manufacturing the AFS Extract, AFS also filters the extraction mixture because the AFS Extract is a powder and creating a powder extract involves filtering the extraction mixture and removing the solvent.

41. Thus, it is clear that AFS infringes one or more claims of each of the Patents-In-Suit.

42. AFS sells or offers to sell its AFS Extract throughout the United States.

43. AFS has had knowledge of the Patents-In-Suit since long before the filing date of the complaint.

**COUNT I - INFRINGEMENT OF U.S. PATENT NO. 7,807,205**

44. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

45. AFS has infringed and is still infringing one or more claims of the '205 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States, the AFS Extract according to claims of the '205 Patent.

46. AFS has infringed and is still infringing one or more claims of the '205 Patent under 35 U.S.C. § 271(g) by importing into the United States, offering to sell, selling or using within the United States the AFS Extract, which is made according to methods claimed in the '205 Patent and during the term of the '205 Patent.

47. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '205 Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

48. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

49. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

50. Unless AFS is enjoined from infringing the '205 Patent, FC will continue to suffer irreparable injury.

**COUNT II - INFRINGEMENT OF U.S. PATENT NO. 8,597,710**

51. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

52. AFS has infringed and is still infringing one or more claims of the '710 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States, the AFS Extract according to claims of the '710 Patent.

53. AFS has infringed and is still infringing one or more claims of the '710 Patent under 35 U.S.C. § 271(g) by importing into the United States, offering to sell, selling or using within the United States the AFS Extract, which is made according to methods claimed in the '710 Patent and during the term of the '710 Patent.

54. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '710 Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

55. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

56. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

57. Unless AFS is enjoined from infringing the '710 Patent, FC will continue to suffer irreparable injury.

**COUNT III - INFRINGEMENT OF U.S. PATENT NO. 8,603,564**

58. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

59. AFS has infringed and is still infringing one or more claims of the '564 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States, the AFS Extract according to claims of the '564 Patent.

60. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '564 Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

61. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

62. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

63. Unless AFS is enjoined from infringing the '564 Patent, FC will continue to suffer irreparable injury.

**COUNT IV - INFRINGEMENT OF U.S. PATENT NO. 7,815,959**

64. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

65. AFS has infringed and is still infringing one or more claims of the '959 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States the AFS Extract according to claims of the '959 Patent.

66. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '959 Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

67. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

68. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

69. Unless AFS is enjoined from infringing the '959 Patent, FC will continue to suffer irreparable injury.

**COUNT V - INFRINGEMENT OF U.S. PATENT NO. 7,754,263**

70. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

71. AFS has infringed and is still infringing one or more claims of the '263 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States, the AFS Extract according to claims of the '263 Patent.

72. AFS has infringed and is still infringing one or more claims of the '263 Patent under 35 U.S.C. § 271(g) by importing into the United States, offering to sell, selling or using

within the United States the AFS Extract, which is made according to methods claimed in the '263 Patent and during the term of the '263 Patent.

73. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '263 Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

74. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

75. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

Unless AFS is enjoined from infringing the '263 Patent, FC will continue to suffer irreparable injury.

**COUNT VI - INFRINGEMENT OF U.S. PATENT NO. 8,603,563**

76. FC incorporates and re-alleges the allegations of foregoing paragraphs as if fully set forth herein.

77. AFS has infringed and is still infringing one or more claims of the '563 Patent under 35 U.S.C. § 271(a) by making, using, offering to sell, selling, or importing into the United States, the AFS Extract according to claims of the '563 Patent.

78. AFS has infringed and is still infringing one or more claims of the '563 Patent under 35 U.S.C. § 271(g) by importing into the United States, offering to sell, selling or using within the United States the AFS Extract, which is made according to methods claimed in the '563 Patent and during the term of the '563 Patent.

79. AFS has long had knowledge of the Patents-In-Suit and AFS knew or should have known of the objectively high likelihood that its actions constituted infringement of the '563

Patent but nonetheless has continued its infringing activities. AFS' infringement, therefore, is and has been willful, and this case is exceptional under 35 U.S.C. § 285.

80. By reason of AFS' infringing activities, FC has suffered and will continue to suffer damages in an amount to be determined at trial.

81. By reason of AFS' infringing activities, FC has suffered irreparable injury for which FC has no adequate remedy at law.

82. Unless AFS is enjoined from infringing the '563 Patent, FC will continue to suffer irreparable injury.

### **JURY DEMAND**

FC demands a trial by jury as to all claims and all issues properly triable thereby.

### **REQUEST FOR RELIEF**

WHEREFORE, FC respectfully requests the following relief:

A. The entry of judgment that the '205 Patent, '710 Patent, '564 Patent, '959 Patent, '263 Patent, and the '563 Patent are valid and enforceable;

B. The entry of judgment that the '205 Patent, '710 Patent, '564 Patent, '959 Patent, '263 Patent, and the '563 Patent are infringed by AFS;

C. A declaration that AFS' infringement of the '205 Patent, '710 Patent, '564 Patent, '959 Patent, '263 Patent, and the '563 Patent has been and is willful;

D. An award of damages to FC adequate to compensate for AFS' infringing activities, including supplemental damages for any post-verdict infringement accrued prior to entry of final judgment with an accounting as needed, together with prejudgment and post-judgment interest on the damages awarded; all of these damages to be enhanced in an amount up to treble the amount of compensatory damages as justified under 35 U.S.C. § 284;

E. A declaration that this case is exceptional under 35 U.S.C. § 285 and an award to FC of its reasonable costs and expenses of litigation, including attorneys' and experts' fees;

F. The entry of a permanent injunction, enjoining AFS, its officers, directors, agents, servants, employees, successors and assigns, and all others in concert and privity with them, from making, using, offering to sell, selling, marketing, distributing, or importing the AFS Extract and any other products not colorably different, that infringe the Patents-In-Suit, until after the expiration of the last to expire of the Patents-In-Suit, including any extensions of that date; and

G. An award to FC of such other and further relief as the Court may deem just and proper.

Dated: February 6, 2023

Respectfully submitted,

*s/ Robert D. Leighton*

A. Colin Wexler  
Robert D. Leighton  
GOLDBERG KOHN, LTD.  
55 E. Monroe, Suite 3300  
Chicago, IL 60622  
312-201-4000

*s/ J. Mark Smith*

J. Mark Smith, Reg. No. 973  
FAIRFIELD AND WOODS, P.C.  
1801 California Street, Suite 2600  
Denver, CO 80202  
303-830-2400  
jmsmith@fwlaw.com

*Attorneys for VDF FutureCeuticals, Inc.*