IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF KANSAS

OXION, INC., a Colorado corporation, Plaintiff, vs. 03 ZONE CO., INC., an Idaho corporation, Defendants.	Case No.: 06-1385-JTM COMPLAINT FOR DECLARATORY JUDGMENT: 1. Non-Infringement of U.S. Patent No. 7,138,145 B2; 2. Invalidity of U.S. Patent No. 7,138,145 B2; and 3. Unfair Competition (JURY TRIAL DEMANDED)

COMPLAINT

Plaintiff, OXION, INC. (hereinafter "Plaintiff or "Oxion") complains of Defendant 03 Zone Co., Inc. (hereinafter referred to as "Defendant") and alleges as follows:

PARTIES, JURISDICTION AND VENUE

PARTIES:

1. Plaintiff Oxion, Inc. ("Plaintiff") is a corporation incorporated under the laws of the State of Colorado, with its principal office and place of business in Stevens County, Hugoton, Kansas.

2. Defendant 03 Zone Co., Inc. ("Defendant") is a corporation incorporated under the laws of the State of Idaho, with its principal office and place of business at 1165 South Utah Avenue, Idaho Falls, Idaho.

3. This is an action for declaratory judgment that U.S. Patent No. 7,138,145 B2 (hereinafter the '145 patent) is invalid, unenforceable and not infringed by Plaintiff. The Court has jurisdiction under 28 U.S.C. §§ 1331, 1338(a), 1367, 2201 and 2202.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States of America and jurisdiction is founded on Title 28, United States Code § 1338(a).

5. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b).

FACTUAL BACKGROUND

6. On November 21, 2006, United States Patent No. 7,138,145 B2 (the '145 patent), a copy of which is attached hereto as Exhibit A, was issued to Roland N. Walker, et al.

7. During the patent application process that resulted in issuance of the '145 Patent, the Patent Office objected to the application and rejected Claims 1 through 7. In pertinent part, the Patent Office indicated:

"Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention."...

"The invention is directed to a process for treating grain in-situ by pulling a gas stream from the top to the bottom of a container, introducing ozone into the top of the container, taking the gases from bottom of the container and the re-circulating the gases back to the top of the container and monitoring the concentration, and the further step of removing a quantity of grain from the center of the column of the grain."

8. In an Office Action mailed January 25, 2006, the Examiner held as follows: "The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CRF 1.75(d)(1) and MPEP Section 608.01(o). Correction of the following is required:

"Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. With respect to claims 1-7, a means for supporting the

grain at the bottom of the container which allows the large fat at the bottom of the container to rotate freely yet allows the gases to pass through the grain and said means to the large fan critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. With respect to claims 1-7, a means for re-circulating gases including ozone through the duct critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure…."

" The Examiner has duly considered Applicant's arguments but deems them unpersuasive.

Contrary to Applicant's assertion, none of the claims have been amended in accordance with Examiner's request.... The Specification does not describe the use of any system to draw the ozone from the top of the elevator other than a large fan. There is no description of alternative structures nor is there any evidence that the structure disclosed is not essential. The argument that there maybe some other alternative structure is insufficient to establish that the structures set forth in the Specification are not essential. The arguments of counsel cannot take the place of evidence in the record...."

The Patent Office further rejected Defendant's patent application because the claims were unpatentably obvious considering the prior art.

9. Based on further amendments made by Defendant limiting the '145 patent application claims, the Examiner allowed the limited claims and stated, in part:

"...The following is an examiner's statement for reasons for allowance: The prior art does not expressly disclose or make obvious the claimed invention in that the prior art does not disclose or suggest a process of treating grain by pulling a gas stream containing ozone in the claimed concentration range from the top of the grain containment area to the bottom of the container via a fan located at the bottom of the grain containment area, re-circulating the ozone via a large duct back to the top for reuse and monitoring the concentration of ozone at the bottom of the containment area to maintain the concentration in the grain as claimed. The claims are enabled by the Specification, including but not limited to removal of grain, pulling ozone to the top of the container, rotation of the fan when the container contains grain and the use of a grating and the specific methodology of grain removal and means by which insects flee the

loading bin or auger are not essential elements..." (emphasis added)

10. By virtue of assignment, Defendant claims to be the owner of the '145 patent, claiming the right to sue others for infringement. The '145 patent is entitled "METHOD AND APPARATUS FOR OZINATION OF GRAIN".

11. By correspondence dated December 11, and December 18, 2006, Defendant advised Plaintiff that Defendant had retained litigation counsel to represent Defendant in licensing and enforcing the '145 patent. Defendant demanded that Plaintiff cease all direct and indirect uses of the '145 Patent immediately. Defendant threatened to enforce the '145 patent against Plaintiff if Plaintiff did not enter into a license agreement requiring Plaintiff to pay continuing and past royalties to Defendant.

12. Plaintiff has refused to capitulate to Defendant's repeated demands for royalties because the '145 patent is invalid and not infringed by Plaintiff's manufacture, sale or use of its ozone treatment products.

13. Plaintiff has been manufacturing, selling and using its ozone treatment of crops for at least the past decade and continues to manufacture and sell its ozone treatment products. Accordingly, an actual controversy exists between Plaintiff and Defendant as to the validity

and infringement of the '145 patent. That controversy requires resolution by this Court.

14. Defendant's infringement allegations, as set forth above, are irreconcilable with the '145 Patent prosecution history.

15. The record demonstrates that "no reasonable litigant could realistically expect success on the merits" of Defendant's infringement claim in that Defendant's infringement position is objectively baseless.

16. Ozone treatment products of agricultural crops are the relevant product market in this case and the entire United States is the relevant geographic market.

17. To facilitate the relevant ozone treatment marketplace, Plaintiff undertook substantial efforts, with a significant expenditure of time, money and manpower, to research, develop, manufacture, distribute and market products incorporating ozone treatment functionality for agricultural crops.

18. Plaintiff and Defendant are in direct and substantial competition in the sale of such ozone treatment products throughout the United States. Defendant is a new participant and based on Defendant's own admissions, Defendant's '145 Patent was not filed until September 17, 2004.

19. The production, sale and distribution of ozone treatment products, is in and directly affects interstate and foreign commerce. The violations alleged hereafter have had, and unless restrained by this Court, will continue to have the effect of substantially suppressing, eliminating and interfering with competition in the above-described products in the flow of both interstate and foreign commerce.

20. At all times mentioned, Defendant engaged in deliberate conduct with the specific purpose and intent of eliminating Plaintiff as a competitor and acquiring an absolute monopoly of the aforesaid relevant market by knowingly and purposefully threatening to institute and maintain baseless patent infringement litigation against Plaintiff, in bad faith for the sole and exclusive purpose of eliminating Plaintiff's ability to compete with Defendant and to cause actual and prospective customers to boycott Plaintiff's products.

21. Defendant's purported acquisition of the '145 patent rights from Walker, et al., was an asset acquisition among persons engaged in interstate commerce. The effect of such acquisition was to facilitate anticompetitive litigation against Defendant's competitor, namely Plaintiff, and to substantially lessen competition or tend

to create a monopoly in the relevant ozone treatment products in the United States.

FIRST CAUSE OF ACTION

(Non-Infringement of U.S. Patent No. 7,138,145 B2)

22. Plaintiff incorporates by reference the allegations set forth in paragraphs 1 through 21, of this complaint with the same force and effect as if set forth herein in their entirety.

23. Plaintiff's products and methods related to ozone treatment of crops has been accused by Defendant of infringing some or all of the '145 Patent claims.

24. Plaintiff's ozone treatment of crops do not infringe any valid claims of the '145 Patent.

25. Plaintiff is entitled to a judgment declaring that it has not infringed the '145 Patent through manufacture, distribution or the sale of its products and services.

SECOND CAUSE OF ACTION

(Invalidity of U.S. Patent No. 7,138,145 B2)

26. Plaintiff incorporates by reference the allegations set forth in paragraphs 1 through 21 and 23 through 25 of this complaint with the same force and effect as if set forth herein in their entirety.

27. U.S. Patent No. 7,138,145 B2 is invalid because it fails to comply with the requirements set forth in 35 U.S.C. §§ 101, 102, 103, and 112.

27. Pursuant to 28 U.S.C. §§ 2201-02, Plaintiff seeks a declaratory judgment that the '145 patent is invalid under 35 U.S.C. §§ 102, 103 and 112 for one or more of the following reasons:

a. The purported invention claimed in the '145 patent was known or used by others in this country, or patented or described in a printed publication in this country or a foreign country, before the invention thereof by the applicant for the patent;

b. The invention claimed in the '145 patent was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country, more than one year prior to the date of the application for the patent in the United States;

c. The named applicants did not invent the subject matter sought to be patented;

d. Before the named applicants purported invention thereof, the claimed invention

was made in this country by another who had not abandoned, suppressed or concealed it;

e. The differences, if any, between the subject matter sought to be patented in the '145 patent and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains;

f. The specification of the '145 patent does not 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, or with which it is most nearly connected, to make and use the same, and does not set forth the best mode contemplated by the inventor of carrying out the invention;

g. The claims of the '145 patent fail to particularly point out and distinctly claim

the subject matter which the applicants regarded as the purported invention;

h. One or more improper oath(s) or declaration(s) was or were filed in the application resulting in the '145 patent;

i. The description contained in the '145 patent and a disclosure of the alleged invention or improvement, in the claims thereof, are vague, indefinite, incomplete and not in such full, clear, concise and exact terms as to enable persons skilled in the art to use and practice the alleged invention or improvement;

j. The patent specification contained in the '145 patent does not set forth the best mode contemplated by the named inventor for carrying out the alleged invention;

k. By reason of representations made in proceedings which took place in the United States Patent and Trademark Office during the prosecution of the application which matured into the '145 patent, defendant is estopped to assert any construction of the claims therein which might cause the claims

to be read as infringed by plaintiff's products; and

l. By reason of the representations made in the proceedings which took place in the United States Patent and Trademark Office during the prosecution of the application, which matured into the '145 patent, the '145 patent is unenforceable. In this respect, the applicant for the '145 patent misrepresented material facts to the U.S. Patent and Trademark Office which, if known, would not have resulted in the issuance of the '145 patent.

28. Upon information and belief, during the prosecution of the application which resulted in the '145 patent, the alleged inventors and their counsel, intentionally or through gross negligence failed to fulfill their duty of candor and good faith toward the Patent and Trademark Office as required by 37 C.F.R. § 1.56.

29. Pursuant to 28 U.S.C. §§ 2201-02, Plaintiff seeks a declaratory judgment that manufacture, use and sale of its ozone treatment products in the United States are not covered by and/or do not infringe the '145 patent.

30. Plaintiff is entitled to a judgment declaring that U.S. Patent No. 7,138,145 B2 is invalid.

THIRD CAUSE OF ACTION

(Unfair Competition - Under Kansas Law)

31. Plaintiff incorporates by reference the allegations set forth in paragraphs 1 through 21; 23 through 25; and 27 through 30 of this complaint with the same force and effect as if set forth herein in their entirety.

32. Count Three of this Complaint is based on the doctrine of pendent jurisdiction. The claim is asserted herein is ancillary to the federal declaratory judgment count above and arises from the same transactions and from a common nucleus of operative facts.

33. Defendant's acts constitute unfair competition in Kansas and other states where Defendant sells, offers, and/or advertises its goods, including this District, and is a violation of the common law of Kansas, and laws of other states, by reason of which Plaintiff has suffered, and will continue to suffer, irreparable injury.

34. As a direct and proximate result of the violations alleged herein, Plaintiff has been, and will continue to be immediately and irreparably injured in its business and property by Defendant's continuing violations.

Plaintiff has no adequate remedy at law to compensate for such injury, and unless defendant is restrained by an appropriate order of this Court, Plaintiff will continue to suffer an inability to compete fully and fairly in the market, loss of its revenues, loss of profits it would other have made, loss of substantial goodwill and reputation normally attached to a profitable enterprise, and a reduction in the value of its business as a going concern.

35. As a direct and proximate result of the violations alleged herein and as intended by Defendant, Plaintiff has sustained injury to its business and property, as follows:

(a) It has incurred attorneys' fees in the defense of defendant's threatened sham patent infringement suit described above;

(b) it has lost or will lose profits in an amount as yet undetermined with certainty at present;

(c) it has suffered, or will suffer a loss in the value of its business as a going concern;

(d) it has suffered, or will suffer a substantial loss of goodwill normally attached to a profitable enterprise; and

(e) it has suffered a lost potential for growth.

36. Plaintiff cannot now measure these damages with specificity. When Plaintiff has sufficient information to permit it allege with specificity the quantum of its damages, Oxion will ask leave of the Court to amend its Complaint to insert said sum herein.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully prays this Honorable Court grant the following relief:

1) A declaration that the '145 Patent is invalid;

2) A declaration that the '145 Patent is unenforceable;

3) A declaration that manufacture, use and sale of Plaintiff's products are not covered by and/or do not infringe the '145 Patent;

4) A judgment awarding Plaintiff all damages sustained by Plaintiff as a result of 03 Zone's actions;

5) A declaration that this is an exceptional case under 35 U.S.C. § 285;

6) A judgment awarding Plaintiff its costs and reasonable attorney's fees;

7) That judgment be entered against Defendant on the Third Count for the amount of actual damages suffered by Plaintiff and that it be awarded a reasonable attorneys' fees and recover its costs of suit; and

8) Such other and further relief as the Court deems just and proper.

Respectfully submitted,

MARTIN, PRINGLE, OLIVER,
WALLACE & BAUER, L.L.P.

Dated: December 29, 2006

By: /s/Michael G. Jones

Michael G. Jones, #14511
MARTIN, PRINGLE, OLIVER,
WALLACE & BAUER, L.L.P.
100 N. Broadway, Suite 500
Wichita, Kansas 67202
Telephone: 316/265-9311
Facsimile: 316/265-2955
mgjones@martinpringle.com

OF COUNSEL:

Frank Frisenda
FRISENDA, QUINTON & NICHOLSON
11601 Wilshire Blvd., Ste 500
Los Angeles, CA 90025
Telephone: 702/792-3910
Facsimile: 702/436-4176

Attorneys for Oxion, Inc.

DEMAND FOR JURY TRIAL

Plaintiff hereby requests a trial by jury.

Respectfully submitted,

MARTIN, PRINGLE, OLIVER,
WALLACE & BAUER, L.L.P.

Dated: December 29, 2006

By: /s/Michael G. Jones

Michael G. Jones, #14511
MARTIN, PRINGLE, OLIVER,
WALLACE & BAUER, L.L.P.
100 N. Broadway, Suite 500
Wichita, Kansas 67202
Telephone: 316/265-9311
Facsimile: 316/265-2955
mgjones@martinpringle.com

OF COUNSEL:

Frank Frisenda
FRISENDA, QUINTON & NICHOLSON
11601 Wilshire Blvd., Ste 500
Los Angeles, CA 90025
Telephone: 702/792-3910
Facsimile: 702/436-4176

Attorneys for Oxion, Inc.

US007138145B2

(12) United States Patent
Walker et al.

(10) Patent No.: US 7,138,145 B2
(45) Date of Patent: Nov. 21, 2006

(54) METHOD AND APPARATUS FOR OZINATION OF GRAIN

(75) Inventors: Roland N. Walker, Idaho Falls, ID (US); Carl B. Taylor, Ida Falls, ID (US); Lynn F. Johnson, American Falls, ID (US); Phil W. Simpson, Idaho Falls, ID (US)

(73) Assignee: O3 Zone Co., Inc., Idaho Falls, ID (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 10/943,389

(22) Filed: Sep. 17, 2004

(65) Prior Publication Data

US 2005/0112209 A1 May 26, 2005

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/243,558, filed on Sep. 13, 2002.

(60) Provisional application No. 60/323,900, filed on Sep. 21, 2001.

(51) Int. Cl.

A01N 59/00	(2006.01)
A23B 9/18	(2006.01)
A23L 3/3409	(2006.01)

(52) U.S. Cl. 424/613; 422/28; 422/31; 422/40; 426/312; 426/320; 426/335; 426/532

(58) Field of Classification Search ..... None

See application file for complete search history.

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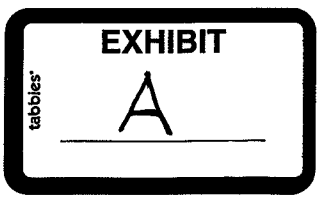
Primary Examiner—Sreeni Padmanabhan
Assistant Examiner—Frank I Choi

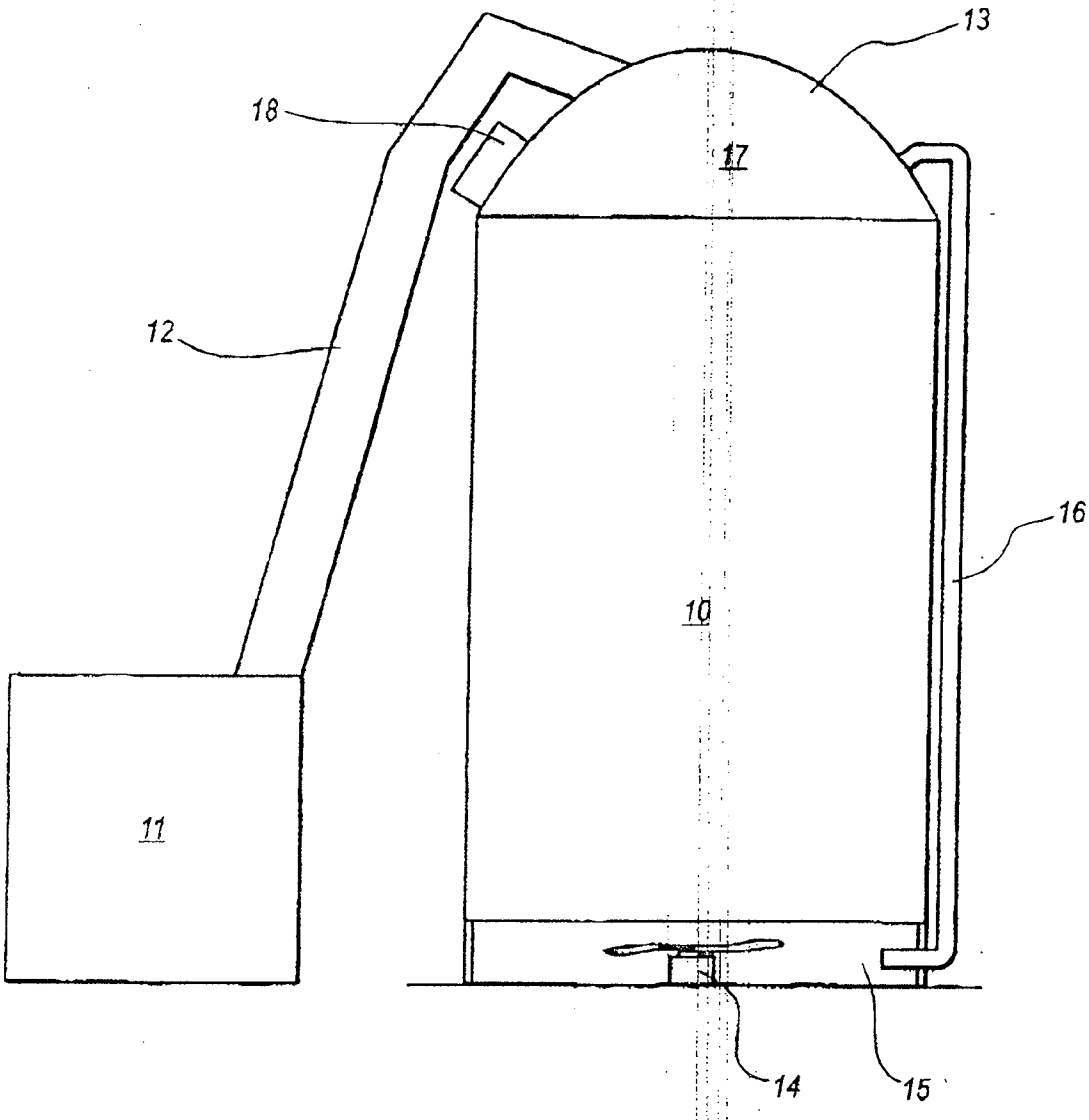
(74) *Attorney, Agent, or Firm*—Kirton & McConkie; Michael F. Krieger

(57) ABSTRACT

A method for treating grain comprising circulating concentrated ozone through an evenly distributed column of grain to maintain a concentration of between 50 and 100 ppm.

7 Claims, 1 Drawing Sheet

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METHOD AND APPARATUS FOR OZINATION OF GRAIN

RELATED APPLICATIONS

This application is a continuation-in-part of co-pending U.S. application Ser. No. 10/243,558, filed Sep. 13, 2002, which claims priority to provisional application No. 60/323,900, filed Sep. 21, 2001.

BACKGROUND

Field of the Invention

Traditional methods for treating grain involve the fumigation of the grain with toxic chemicals such as phosphine and methyl bromide. Both of these fumigation techniques have been effective at killing insects, however, they do pose a danger to those who come in contact with the chemicals and they have not been effective in treating mold, fungus, and some bacteria that also infest the surface of grain.

BRIEF DESCRIPTION OF THE DRAWINGS

The FIGURE depicts a grain elevator incorporating the teachings of the present invention.

SUMMARY AND OBJECTS OF THE INVENTION

It is an object of some embodiments of the present invention to provide a method for treating grain for fungus, mold, bacteria, dust, and insects by exposing the grain to a high concentration of ozone for an extended period of time. The present invention utilizes a powerful fan or fans placed at the bottom of the grain storage facility such as, for example, a silo or grain elevator to draw down through the grain a flow of gas containing ozone between 50 and 100 ppm. Ozone generators placed in the head space at the top of the elevator produce ozone in a concentration in excess of 100 ppm. Monitors placed in this head space assure that the ozone concentration remains at these levels. If the ozone generators are not capable of maintaining the concentration at 100 ppm in the head space, then the draw is reduced by slowing the fan speed. A duct takes drawn gases from the bottom of the elevator and re-circulates those gases into the head space to reduce the amount of ozone needed to be generated during a second pass. To assure that the gases come in contact with all of the grain in the elevator, a technique labeled "pulling the core" is utilized wherein a quantity of grain is removed from the bottom of the elevator at its center to remove a column of grain from the core of the column of grain thereby evenly distribute the grain within the elevator. The material which is pulled from the core is then sent back to the top of the column and evenly distributed across the top. It has been found that this pulling of the core technique greatly enhances the efficiency of the ozination process.

It has been found that to assure the eradication of all insects, exposure for approximately seventy-two hours is required. Mold, bacteria and some insects will begin to die within the first twenty-four hours. Some fungal pores could require longer exposure.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The following discussion is directed towards grain stored within a vertical elevator **10**. It will be understood by those skilled in the art that the same techniques can be used for grains stored in other facilities. In one embodiment, a quantity of ozone is injected into a grain bin, vessel, or truck prior to the grain being loaded into said container in order to treat the grain for mold, bacteria, fungi, and biological load as the grain is loaded. In another embodiment, grain is delivered to the elevator by truck and is dumped into a loading bin **11** which has placed near its bottom an auger **12** which transports the grain from the loading bin to the top of the elevator **13**. In this embodiment, the loading bin is partially enclosed and has injected therein a sufficient quantity of ozone to create a concentration of approximately 100 ppm within the loading bin and the enclosed auger. Because ozone not only kills insects but also tends to drive insects away, the auger and loading bin are not completely sealed, but have sufficient spaces available for insects to flee the grain as it is loaded and transported to the top of the elevator. The purpose of this initial exposure is not necessarily to kill the insects, but to drive the insects out of the grain before it is treated. Once the grain is moved by the auger into elevator **10**, a large fan **14** is activated at the bottom of the elevator is to draw gases from the top of the elevator out through the bottom of the elevator. In one embodiment, ozone is introduced into the top of a container, such as said elevator, in an amount sufficient to maintain a concentration of between 50 and 200 ppm throughout the entire grain containment area of said container, which maybe reduced to 35 ppm if only mold is to be treated. These gases exit the elevator into a large duct **16** which takes the gases back to the top of the elevator before recycling. The ozination process, to achieve maximum efficiency, should occur every thirty days. As a result, this process will often occur when the elevator is full of grain.

When the elevator is full it has been discovered that to be effective in uniformly treating the grain, the central core of grain must be pulled from the elevator, removed out through the bottom of the elevator and redistributed to the top of the column of grain to evenly distribute the grain and allow for uniformed permeation of gases. Ozone generators **18** provide sufficient ozone to create a concentration of at least 100 ppm in the head space **17** in the top of elevator **13**. If the ozone generators do not have a sufficient capacity to create this concentration, then the speed of the fan at the bottom of the elevator must be reduced to maintain a 100 ppm concentration of ozone in the head space.

Because the ozone reacts with the biologic load on the outer surface of each grain, it takes a significant period of time before un-reacted ozone at a 50 ppm concentration passes from the head space out through the bottom of the elevator on its first pass. It has been found that this can take as many as seventy hours for the first pass. Subsequent passes take as few as two hours because of the significantly reduced biological load on the outer surface of the grain. It has been found that if the concentration is maintained for three days, that almost all insect, mold, bacteria, and fungus will be destroyed. Ozone monitors in the head space and bottom of the column verify the concentration of ozone so that the generators will create a sufficient quantity of ozone to maintain the concentration. Smell from mold and fungus disappears after 24 hours. Some insects are killed after 12 hours but complete insect eradication usually requires 72 hours.

As mentioned before, if the generators are not capable of maintaining this high concentration, the fan speed must be reduced to maintain the over 100 ppm concentration at the head space and more importantly, the 50 ppm concentration at the bottom of the column. This concentration may be reduced to 35 ppm if only mold is to be treated.

It will be appreciated by those skilled in the art that this concentration can be increased; however, the inventors have found that any reduction below 100 ppm greatly reduce the efficiency of the process.

It will also be appreciated that after the gases are recycled from the bottom of the elevator, during some of the later passes, a significant concentration of ozone still exists and the ozone generators will not be required to generate as much ozone. After the initial biological load has been destroyed, a greater concentration of ozone will remain after passing through the grain column.

After completion of the processing of the grain, the ozone generators are removed and the gases are recycled through the grain column until the ozone levels are reduced to a level where it is safe for operators to work in the vicinity of the elevator. Because ozone is highly oxidative and reacts quickly, this usually does not require a great amount of time.

We claim:

1. A process for treating grain in-situ comprising the steps:

a) pulling a gas stream from the top of a grain containment area to the bottom of the container via a fan located at the bottom of the grain containment area;

b) introducing ozone into the top of the container sufficient to maintain a concentration of between 35 and 200 ppm throughout the entire grain containment area, with the proviso that if the grain is being treated for other than mold only, that sufficient ozone be introduced to maintain the concentration of ozone between 50 and 200 ppm throughout said grain containment area;

c) taking the gases from the bottom of the grain container and re-circulating those gases via a large duct back to the top of the container so that they may be reused; and

d) monitoring the concentration of the ozone at the bottom of the containment area to maintain the concentration in the grain at a level of at least 35 ppm, if the grain is being treated for mold only, otherwise, at a level of at least 50 ppm.

2. A method as set forth in claim 1, wherein the grain in the grain containment area comprises a column of grain and the method further comprises the step of removing a quantity of grain from the center of the column of grain.

3. A method as set forth in claim 1, wherein the container comprises a grain elevator and the method further comprises injecting a quantity of ozone into a loading bin and auger of said grain elevator to drive insects from the grain prior to loading into the elevator.

4. A method as set forth in claim 1, further comprising injecting a quantity of ozone into a grain bin, vessel, or truck prior to the grain being loaded into said container in order to treat the grain for mold, bacteria, fungi, and biological load as the grain is loaded.

5. A method as set forth in claim 1, further comprising repeating the step of re-circulating until all insects are destroyed.

6. A method as set forth in claim 1, further comprising repeating the step of re-circulating until all mold is destroyed.

7. A method as set forth in claim 1, further comprising repeating the step of re-circulating for between 12 and 72 hours.

* * * * *