UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
NORTHWESTERN DIVISION

David Monson	)	
-and-	)	
Wayne Hauge,	)	**Civ. No. 4:07-cv-00042 (DLH/CSM)**
Plaintiffs,	)	
v.	)	
Drug Enforcement Administration	)	
-and-	)	**Affidavit of Burton L. Johnson, Ph.D.**
United States Department of Justice,	)	
Defendants.	)	

STATE OF NORTH DAKOTA)
) ss.
COUNTY OF CASS)

Professor Burton L. Johnson, being first duly sworn on oath, deposes and says:

Background and Qualifications

1. I am of legal age and a citizen of the United States and a resident of Minnesota with my principal residence in Moorhead, Minnesota. I make this affidavit upon personal knowledge.

2. I hold a Ph.D. in Plant Sciences from North Dakota State University ("NDSU") (1993), a M.S in Plant Sciences from NDSU (1982), and a B.S. in Biology from Minnesota State University, Moorhead (1974). I have served as an Associate

EXHIBIT
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Professor in the Department of Plant Sciences at NDSU since July 1, 2004. Prior to that time, I served as an Assistant Professor in the Department of Plant Sciences at NDSU from April 1998 to June 30, 2004. A copy of my current C.V. is attached hereto as Exhibit A.

Industrial Hemp

3. Industrial hemp is a commonly used term for genetically distinct non-psychoactive, non-drug varieties of the species Cannabis sativa L. Industrial hemp plants grown in Canada and Europe contain less than 0.3% and 0.2% by weight of tetrahydrocannabinol ("THC") in the upper portion of the flowering plant, respectively, versus the drug marijuana which typically contains 3 to 15% THC in its flowers. Hemp can be grown as a fiber and/or seed crop. Industrial hemp is currently cultivated by farmers in more than 30 countries including Canada, England, France, Germany, Hungary, Russia and China.

NDSU's Past Role in the Development of North Dakota's Industrial Hemp Industry

4. In 1997, the North Dakota legislature commissioned a study of the feasibility of industrial hemp production in North Dakota by the North Dakota Agricultural Experiment Station. S.L. 1997, ch. 56 § 13. That study was completed and published in 1998. Agricultural Economics Report No. 402 (July 23, 1998). This study found that industrial hemp was grown in southeastern North Dakota during the 1940's, and concluded that industrial hemp is a viable alternative rotation crop and that cultivation of industrial hemp would create significant economic and business opportunities for the state's farmers.

5. NDSU, as the location of the North Dakota state university system's main agricultural research center, is charged with conducting research for the "development and dissemination of technology important to the production and utilization of food, feed, fiber and fuel from crop and livestock enterprises." N.D.C.C. § 4-05.1-05. The center is authorized to conduct research regarding industrial hemp; and to collect feral hemp seed stock and develop appropriate adapted strains of industrial hemp containing less than 3/10 of one percent THC in the dried flowering tops. N.D.C.C. § 4-05.1-05.

6. Pursuant to this legislative mandate, NDSU submitted its own application to DEA for a license to cultivate industrial hemp for research purposes, on September 28, 1999. A true and correct copy of the application materials is attached hereto as Exhibit B. NDSU proposed to plant 160,000 viable seeds to produce 144,000 hemp plants in the field, and to evaluate characteristics including emergence, growth and development, phenology, pest incidence, seed and biomass yield and seed and biomass quantity.

7. To date, the DEA has not ruled on NDSU's application in the eight (8) years since its filing.

8. In 2005, the State of North Dakota enacted a law permitting a person within the state to plant, grow, harvest, possess, process, sell and buy industrial hemp upon meeting certain requirements and obtaining a license from the Agriculture Commissioner. N.D.C.C. §§ 4-41-01 and 4-41-02. The law defines "industrial hemp" to mean *Cannabis sativa l.* "having no more than three tenths of one percent tetrahydrocannabinol." N.D.C.C. § 4-41-01.

9. Representative David Monson and Wayne Hauge obtained a license from the Agriculture Commissioner and subsequently applied to DEA for registration to

manufacture a controlled substance in bulk, in order to cultivate industrial hemp pursuant to state law.

10. The cultivation of industrial hemp would create significant economic and business opportunities for the state's farmers. When Rep. Monson and Mr. Hauge grow industrial hemp, their plants will be available for study and analysis by NDSU, enabling NDSU to carry out its statutorily mandated function of conducting research on industrial hemp.

11. On July 27, 2007, NDSU submitted a letter to DEA's Office of Diversion Control in support of Rep. Monson's application for DEA license. A true and correct copy of that letter is attached hereto as Exhibit C.

NDSU's Future Role in North Dakota's Industrial Hemp Industry

12. The cultivation of industrial hemp in North Dakota pursuant to state law will help promote technical advances in the cultivation of industrial hemp in the United States. NDSU would cooperate with and assist Rep. Monson and Mr. Hauge, in ensuring that their initial and subsequent crops are cultivated in accordance with the best practices that will yield valuable lessons for these and other farmers in the state.

13. North Dakota law authorizes NDSU to conduct baseline research regarding industrial hemp, including the collection of feral hemp steed stock and development of appropriate adapted strains of industrial hemp containing less than three tenths of one percent THC in the dried flowering tops. N.D.C.C. § 4-05.1-05. This law also mandates that North Dakota Agriculture Commissioner Roger Johnson monitor the collection of feral hemp seed stock and certify appropriate stocks for licensed commercial cultivation. If and to the extent that NDSU has available hemp seed stock and

Commissioner Johnson has certified appropriate stocks for commercial cultivation, this seed stock would be made available to licensed North Dakota Farmers, including Rep. David Monson and Wayne Hauge, for their use in planting industrial hemp.

Dated this 14 day of September, 2007

Burton L. Johnson

Burton L. Johnson, Ph.D.

Subscribed and sworn to before me this 14th. day of September, 2007.

(SEAL) DIANA K IVERSON
Notary Public
State of North Dakota
My Commission Expires Apr. 8, 2010

Diana K Iverson

Notary Public

566360

Burton L. Johnson, Ph.D.

Associate Professor, Department of Plant Sciences
North Dakota State University, Fargo
701-231-7971
e-mail <burton.johnson@ndsu.edu>

Education

Ph.D. in Plant Sciences. 1993. North Dakota State University, Fargo
M.S. in Plant Sciences. 1982. North Dakota State University, Fargo
B.S. in Biology. 1974. Minnesota State University Moorhead

Professional Experience

Associate Professor, Dept. of Plant Sciences, North Dakota State Univ., Fargo, from July 1, 2004 to present.
Assistant Professor, Dept. of Plant Sciences, North Dakota State Univ., Fargo, from April 1998 to June 30, 2004. Appointment is 90% research and 10% teaching. Leadership is provided in conducting crop production research in sunflower, alternative, and potential new crops in North Dakota. Teaching responsibilities include instructing an undergraduate course in crop production, and advising undergraduate and graduate students.

Interim Project Leader, Dept. of Plant Sciences, North Dakota State Univ., Fargo, from January 1993 to April 1998. Appointment was 100% research and associated with crop production research in sunflower, alternative, and potential new crops in North Dakota.

Research Specialist II, Dept. of Plant Sciences, North Dakota State Univ., Fargo, from April 1976 to April 1998. Appointment was to provide support to the project leader in conducting crop production research in sunflower, alternative, and potential new crops in North Dakota.

Peer-Reviewed Journal Publications

Berti, M.T., and B.L. Johnson. (in press) Seed germination response of cuphea to temperature. Ind. Crops and Prod.

Berti, M.T., B.L. Johnson, L.K. Manthey. 2007. Seed physiological maturity in cuphea. Ind. Crops and Prod. 25:190-201.

Gulya, T.J., R.W. Gesch, C.A. Bradley, L.E. del Rio, and B. L. Johnson. 2006. First report of *Sclerotinia sclerotiorum* infection on *Cuphea*. Plant Dis. 90:1554.

Berti, M.T.*, B.L. Johnson, and L.K. Manthey. 2006. Seed physiological maturity in Cuphea. Ind. Crops Prod. [Online] doi:10.1016/j.indcrop.2006.09.003.

del Rio, L.E., C.A. Bradley, and B.L. Johnson. 2005. First report of white mold caused by *Sclerotinia sclerotiorum* on echium (*Echium vulgare* L). Plant Disease 89:684.

Bradley, C.A., L.E. del Río, C.D. Chesrown, and B.L. Johnson. 2005. First report of soft rot, caused by Sclerotinia sclerotiorum, on borage in North Dakota. Plant Disease 89:208.

Lamb, K.E., and B.L. Johnson. 2004. Seed size and seeding depth influence on canola emergence and performance in the Northern Great Plains. Agron. J. 96:454-461.

Kandel, H.J., P.M. Porter, B.L. Johnson, R.A. Henson, B.K. Hanson, S. Weisberg, and D.G. LeGare. 2004. Plant population influences niger seed yield in the northern Great Plains. Crop Sci. 44:190-197.

Bradley, C.A., L.E. del Rio, and B.L. Johnson. 2003. First report of *Sclerotinia sclerotiorum* on niger (Guizotia abyssinica). Plant Disease 87:684.

Johnson, B.L., and B.K. Hanson. 2003. Row-spacing interactions on spring canola performance in the Northern Great Plains. Agron. J. 95:703-708.

Johnson, B.L. 2003. Dwarf sunflower response to row spacing, stand reduction, and defoliation at different growth stages. Can. J. Plant Sci. 83:319-326.

Scientific Abstracts

Berti. M., B. Johnson, F. Forcella, and R. Gesch. 2005. Cuphea seed yield and oil content response to harvest methods. CD-ROM. *In* Agronomy Abstracts, ASA Madison, WI.

Holthusen, R.A., B.L. Johnson, K.A. Howatt, P.J. Petersen, and R.A. Henson. 2005. Oil sunflower desiccation with glyphosate. CD-ROM. *In* Agronomy Abstracts, ASA, Madison, WI.

Johnson, B.L., M.T. Berti, B.K. Hanson, and R.A. Henson. 2005. Planting and harvest date influence on borage gamma-linolenic acid content. CD-ROM. *In* Agronomy Abstracts. ASA, Madison, WI.

Dash, S., and B.L. Johnson. 2004. Seeding date effect on potential new crops for North Dakota. CD-ROM. *In* Agronomy Abstracts. Madison, WI.

Johnson, B.L., and P.J. Petersen. 2004. Plant defoliation influence on soybean yield. CD-ROM. *In* Agronomy Abstracts. Madison, WI.

Lubenow, L.A., and B.L. Johnson. 2004. Evaluation of nitrogen fertility in North Dakota spearmint. CD-ROM. *In* Agronomy Abstracts. Madison, WI.

Dash, S., B.L. Johnson, B.K. Hanson, M.A. Halvorson, and R.A. Henson. 2003. Screening New Crops for Adaptation in North Dakota. CD-ROM. *In* Agronomy Abstracts. ASA, Madison, WI.

Lubenow, L.A., and B.L. Johnson. 2003. Nitrogen fertility determination for North Dakota spearmint production. *In* Agronomy Abstracts[CD-ROM], ASA, Madison, WI.

Hanson, B., B. Johnson, R. Henson, N. Riveland, E. Eriksmoen, P. Carr, and M. Zarnstorff. 2003. Seeding rate response to various management factors in canola production. p. 38. *In* US Canola Assoc. Abstracts, Washington, D.C.

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Henson, R.A., B.K. Hanson, B.L. Johnson, K.R. McKay, N.R. Riveland, E.D. Eriksmoen, and P.M. Carr. 2003. Canola dormant seeding in ND. p. 37. *In* US Canola Assoc. Abstracts, Washington, D.C.

Johnson, B.L., R.K. Zollinger, R.A. Henson, B.K. Hanson, E.D. Eriksmoen, and N.R. Riveland. 2003. Herbicide resistant and conventional canola production systems comparison. p. 1. *In* US Canola Assoc. Abstracts, Washington, D.C.

Johnson, B.L., and B.K. Hanson. 2003. Row spacing interactions on spring canola performance. p. 29. *In* US Canola Assoc. Abstracts, Washington, D.C.

Scientific Proceedings / Presentations

Johnson, B.L., and P.J. Petersen. 2005. Winter rapeseed evaluations in North Dakota. *In* Proc. GCIRC Canola/Rapeseed Technical Meeting. 27-28 June. Winnipeg, Manitoba. Intl. Rapeseed Cong. Paris, France.

Petersen, J.P., R.A. Henson, B.K. Hanson, and B.L. Johnson. 2005. Effect of low initial stand density on canola performance. *In* Proc. GCIRC Canola/Rapeseed Technical Meeting. 27-28 June. Winnipeg, Manitoba. Intl. Rapeseed Cong. Paris, France.

Holthusen, R.A., B.L. Johnson, K.A. Howatt, P.J. Petersen,and R.A. Henson. 2005. Oil sunflower desiccant evaluations. [Online] http://www.sunflowernsa.com/research. Verified Dec. 2005. National Sunflower Assoc., Bismarck, ND.

Johnson, B.L., R.A. Holthusen, K.A. Howatt, P.J. Petersen,and R.A. Henson. 2005. Nonoilseed desiccant evaluations. [Online] http://www.sunflowernsa.com/research. Verified Dec. 2005. National Sunflower Assoc., Bismarck, ND.

Berti, M.T., B.L. Johnson, and P.J. Petersen. 2004. Cuphea seeding depth affects plant stands. p. 23. *In* Proc. Industrial crops and uses to diversify agriculture. 19–20 Sept. Minneapolis, MN. Assoc. for the Advancement of Industrial Crops, Phoenix, AZ.

Dash, S., B.L. Johnson, and B.K. Hanson. 2004. Seeding date effect on potential new crops for North Dakota. p. 44. *In* Proc. Industrial crops and uses to diversify agriculture. 19–20 Sept. Minneapolis, MN. Assoc. for the Advancement of Industrial Crops, Phoenix, AZ.

Johnson, B.L., K.A. Howatt, P.J. Petersen, and R.F. Roach. 2004. Sunflower desiccant evaluations. [Online] http://www.sunflowernsa.com/research. Verified Dec. 2005. Bismarck, ND.

Johnson, B.L., T.D. Larson, and R.A. Henson. 2003. Stay-green and conventional sunflower desiccation response. [Online] http://www.sunflowernsa.com/research. Verified Dec. 2005. Bismarck, ND.

Johnson, B.L., M.A. Halvorson, R.A. Henson, K.A. Grady, and E.D. Eriksmoen. 2003. Delayed harvest influence on sunflower. [Online] http://www.sunflowernsa.com/research. Verified Dec. 2005. Bismarck, ND.

Selected Grants

Johnson, B.L. Harvest management guidelines for cuphea in North Dakota; Nitrogen fertility influence on yield and oil content in cuphea; Seeding depth guidelines for cuphea production in North Dakota. Grants from the North Dakota SBARE for $2,200, $1,918, and $2,200, respectively, for the 2006 season.

Johnson, B.L. EPSCoR Sunrise award. Grant from NSF EPSCoR for $44,816 for 2005 season.

Johnson, B.L. Winter rapeseed evaluations in North Dakota, Grant from ND SBARE and Northern Canola Growers Assoc. for $6,000 for 2005 season.

Johnson, B.L., and K.R. McKay. North Central region canola research program. USDA-CSREES grant from NCRP for $33,855 for the 2005 season.

Johnson, B.L. Harvest management guidelines for cuphea in North Dakota; Nitrogen fertility influence on yield and oil content in cuphea; Seeding depth guidelines for cuphea production in North Dakota. Grants from the ND SBARE for $2,000, $1,000, and $2,000, respectively, for the 2005 season.

Johnson, B.L., and K.A. Howatt. Sunflower desiccant effectiveness. Grant from ND SBARE for $13,313 for the 2005 season. Matching funds of $4,437 from the National Sunflower Assoc.

Johnson, B.L., and K.A. Howatt. Sunflower desiccant effectiveness. Grant from ND SBARE for $9,000 for the 2004 season. Matching funds of $3,000 from the National Sunflower Assoc.

Johnson, B.L., and K.A. Howatt. Evaluation of potential sunflower desiccants. Grant from the National Sunflower Assoc. for $3,000 for the 2003 season.

Johnson, B.L. Industrial hemp production guidelines for North Dakota. Grant from Agricultural Products Utilization Commission for $55,000 for 2003.

Johnson, B.L. Nitrogen fertility management for spearmint production in North Dakota. Grant from Alternative Crops Program for $43,076 for 2003 and 2004 seasons.

Johnson, B.L. The influence of low initial stand on canola performance. Grant from ND SBARE $8,400 for the 2003 season. Matching funds of $2,800 from the Northern Canola Growers Assoc.

Johnson, B.L., and B.K. Hanson. Harvest date influence on yield and seed quality of straight combined canola. Grant from ND SBARE for $4,990 for the 2003 season. Matching funds of $1,663 from the Northern Canola Growers Assoc.

NDSU NORTH DAKOTA STATE UNIVERSITY

Office of Research Administration
P.O. Box 5790
Fargo, ND 58105-5790

701.231.8045
Fax 701.231.8098
ndsu-research@plains.nodak.edu

September 28, 1999

United States Department of Justice
Drug Enforcement Administration
Central Station
P.O. Box 28083
Washington, DC 20038-8083

RE: DEA Form 225 submitted by Burton L. Johnson, Assistant Professor
Department of Plant Sciences, North Dakota State University

Dear Sir/Madam:

Regarding Item #10: North Dakota State University is a state institution of higher education and thus qualifies as "exempt from the payment of the application fee."

Sincerely yours,

Edna T. Holm

Edna T. Holm, Ph.D.
Coordiinator
Office of Research Administration

...Controlled Substances Act of 1970

DEA FORM 225
1117-0012 (July 1998)

No registration will be issued unless a completed application form has been received (21 CFH 1301.13).

READ INSTRUCTIONS BEFORE COMPLETING

USE BLACK INK

Name: Applicant or Business

(Last) NORTH DAKOTA STATE UNIVERSITY

(1st, MI)

Tax Identification Number 45-6002437 and/or Social Security Number

Proposed Business Address (When using a P.O. Box you must also provide a street address)

1301 12th AVE NORTH

City FARGO State ND Zip Code 58105-5057

Applicant's Business Phone Number Applicant's Fax Number

REGISTRATION CLASSIFICATION:

1. BUSINESS ACTIVITY: (X only one)
E [X] Manufacturer F [X] Distributor G [X] Researcher
H Importer J [X] Exporter K [X]

2. DRUG SCHEDULES: (X all that apply)
[X] Schedule I [X] Schedule II [X] Schedule III Narcotic [X] Schedule III Non Narcotic [X] Schedule IV [X] Schedule V

3. INDICATE HERE IF YOU REQUIRE ORDER FORM BOOKS. [X]

4. SUPPLY ANY OTHER DEA REGISTRATION NUMBERS FOR ANY CLASS OF BUSINESS AT THE ADDRESS SHOWN ON M I S APPLICATION.

5. MANUFACTURERS ONLY
Mark Category and Schedules applicable in the boxes to the right (Definitions on Reverse of Instruction sheet)

MANUFACTURERS CATEGORIES		SCHEDULES I	II	III	III Non	IV	V
A	[X] Bulk, Synthesizer - Extractor	[X]	[X]	[X]	[X]	[X]	[X]
B	[X] Dosage Form	[X]	[X]	[X]	[X]	[X]	[X]
C	[X] Repacker - Relabeler	[X]	[X]	[X]	[X]	[X]	[X]
D	[X] Non-Human Consumption	[X]	[X]	[X]	[X]	[X]	[X]

ATTACH CHECK HERE

6. ALL APPLICANTS MUST ANSWER THE FOLLOWING:
(a) Are you currently authorized to prescribe, distribute, dispense, conduct research, or otherwise handle the controlled substances in the schedules for which you are applying under the laws of the state or jurisdiction in which you are operating or propose to operate?

[X] Yes - State License No. [X] PENDING [ ] N/A

[X] Yes - State Controlled Substance No. [X] PENDING [ ] N/A

ATTENTION

Researcher, Lab $70; Dist., Importer, Exporter $438; Manufacturer $875 For 1 year

substances under state or federal law? ☒ YES ☒ NO

Has the applicant ever surrendered or had a federal controlled substance registration revoked, suspended, restricted or denied? ☐ YES ☒ NO

professional license or controlled substance registration revoked, suspended, denied, restricted, or placed on probation? ☒ YES ☒ NO

(e) If the applicant is a corporation (other than a corporation whose stock is owned and traded by the public), association, partnership, or pharmacy, has any officer, partner, stockholder or proprietor been convicted of a crime in connection with controlled substances under state or federal law, or ever surrendered or had a federal controlled substance registration revoked, suspended, restricted or denied, or ever had a state professional license or controlled substance registration revoked, suspended, denied, restricted, or placed on probation? ☒ YES ☒ NO

7. EXPLANATION FOR ANSWERING "YES" TO ITEM(S) 6(b), (c), (d), or (e).
Applicants who have answered "yes" to item(s) 6(b), (c), (d), or (e) are required to submit a statement explaining such response(s). The space provided below should be used for this purpose. If additional space is needed, use a separate sheet and return with application.

8. DRUG CODE NUMBERS must coincide with the schedules requested. Listed below are the Drug Code requirements for each business activity:

Analytical Lab - Not required to list drug codes
Distributor - Schedule I
Importer - Schedule I thru V
Exporter - Schedule I thru V

Researcher - Schedule I and II (See Item I, Researcher on Instruction Sheet)
Manufacturer - Schedule I, II, III, IIIN in addition to codes furnished, bulk manufacturer (synthesis/extraction) applicants MUST Circle Below those "Basic Classes" of controlled substances in Schedule I and II which you propose to "Manufacture in Bulk." If additional space is required, use a separate sheet and return with application.

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9. PAYMENT METHOD (X one)

FEES ARE NOT REFUNDABLE

☒ VISA ☒ MASTER CARD ☒ CHECK ☒ U.S. MONEY ORDER

Credit Card Number | Expiration Date | SIGNATURE OF CARD HOLDER

10. CERTIFICATION FOR FEE EXEMPTION

☒ MARK THIS BLOCK IF APPLICANT NAMED HEREON IS A FEDERAL, STATE, OR LOCAL GOVERNMENT OPERATED HOSPITAL, INSTITUTION, OR OFFICIAL.
The undersigned hereby certifies that the applicant named hereon is a federal, state, or local government operated hospital, institution, or official, and is exempt from the payment of the application fee.

Signature of Certifying Official (other than applicant): Edna J. Hotuk — Date: 28 Sept. 99

Print OR Type Name of Certifying Official | Print OR Type Title of Certifying Official

11. APPLICANT SIGNATURE (must be an original signature in ink)

Signature: Burton L Johnson — Date: 9/17/99

I hereby certify that the foregoing information furnished on this application is true and correct.

Print OR Type Name: BURTON L JOHNSON

Print OR Type Title (e.g., President, Kin., Procurement Officer, etc...): ASSISTANT PROFESSOR

RETURN COMPLETED APPLICATION WITH FEE IN ATTACHED ENVELOPE

MAKE CHECK OR MONEY ORDER PAYABLE TO:
DRUG ENFORCEMENT ADMINISTRATION

UNITED STATES DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION
CENTRAL STATION
P.O. BOX 28083
WASHINGTON, D.C. 20038-8083

For INFORMATION, Call 1 800 882-9539
See "Privacy Act" information on last page of application

DEA Form 225 (July 1998) MAKE A COPY FOR YOUR RECORDS.

(vi) Statement of the security provisions for storing the controlled substances (in accordance with §1301.75) and for dispensing the controlled substances in order to prevent diversion.

(vii) If the investigator desires to manufacture or import any controlled substance listed in paragraph (a)(2)(iii) of this section, a statement of the quantity to ha manufactured or imported and the sources of the chemicals to be used or the substances to be imported.

(3) Authority:

(i) Institutional approval.

(ii) Approval of a Human Research Committee for human studies.

(iii) Indication of an approved active Notice of Claimed Investigational Exemption for a New Drug (number).

(iv) Indication of an approved funded grant (number).if any.

(b) In rhe case of a clinical investigation with controlled substances listed in Schedule I, the applicant shall submit three copies of a Notice of Claimed Investigational Exemption for a New Drug (IND) together with a statement of the security provisions (as proscribed in paragraph (a)(2)(vi) of this section for a research protocol) to, and have such submission approved by, the Food and Drug Administration as required in 21 U.S.C.355(i) and 5130.3 of this title. Submission of this Notice and statement to the Food and Drug Administration shall be in lieu of a research protocol to the Administration as required in paragraph (a) of this section. The applicant, when applying for registration with the Administration, shall indicate that such notice has been submitted to the Food and Drug Administration by submitting to the Administration with his/her DEA Form 225 three copies of the following certificate:

I hereby certify that on _____ (Date), pursuant to 21 U.S.C. 355(i) and 21 CFR 130.3, I, _____ _____ [Name and Address of IND Sponsor) submitted a Notice of Claimed Investigational Exemption for a New Drug (IND) to the Food and Drug Administration for:

_____ (Name of Investigational Drug).

_____ (Date)

_____ _____

§ 1301.18 Research protocols.

(a) A protocol to conduct research with controlled substances listed in Schedule I shall be in the following form and contain the following information where applicable:

(1) Investigator:

(i) Name, address, and DEA registration number; if any.

(ii) Institutional affiliation.

(iii) Qualifications, including a curriculum vitae and an appropriate bibliography (list of publications).

(2) Research project:

(i) Title of project.

(ii) Statement of the purpose.

(iii) Nrme of the controlled substances or substances involved and the amount of each needed.

(iv) Description of the research to be conducted, including the number and species of research subjects, the dosage to be administered, the route and method of administration, and the duration of the project.

(v) Location where the research will be conducted.

Response of applicant to 1301.18 Research Protocols

1. **Investigator** - Dr. Burton L. Johnson

(i) Department of Plant Sciences
Loftsgard Hall
North Dakota State University
Fargo, ND 58105

DEA registration number - none issued

(ii) Institutional Affiliation - Department of Plant Sciences, North Dakota State University, Fargo

(iii) Qualifications - see attached vitae

2. **Research Project** -

(i) Title - Agronomic field evaluation of industrial hemp in North Dakota

(ii) Statement of purpose

The research purpose is to define basic field crop production practices for industrial hemp regarding stand establishment, growth and development, pest concerns, and yield and quality of harvested material.

(iii) Name of controlled substance

- tetrahydrocannabinols (THC) contained in seed

- 160,000 viable seeds will be planted in the study to produce 144,000 plants in the field

(iv) Description of research to be conducted

A replicated field study will be conducted at the Prosper (46° 28' N, 97° 4' W, elevation 220 m) off-station research site associated with the Agricultural Experiment Station, at Fargo. Factors associated with crop establishment and crop performance will be evaluated. A factorial experimental design will be utilized with several levels of two factors, planting date (2 levels) and cultivar (4 levels). Experimental units will consist of 6 planted rows 4.7 cm apart and 7.6 m in length. The number of viable seeds planted in each experimental unit (13.9 m^2) will be 4,000. The study will consist of 40 experimental units. Seed will be purchased from Canadian suppliers in March and April of 2000. Seed will be kept in a locked laboratory cabinet, on the North Dakota State University campus, until taken to

the field (Prosper off-station site) for planting. Planting will occur in mid-May and again in early-June. Selection of the field site will be away from main roads and surrounded by sunflowers that will conceal the industrial hemp study from view. The test site will be visited daily during the week throughout the growing season. Characteristics will be determined on plants in the center 4 plot rows. Characteristics evaluated will include: emergence, growth and development, phenology, pest incidence, seed and biomass yield, and seed and biomass quality. Harvested plant materials will be further processed in the laboratory. Once all measurements and determinations have been made the plant material will be taken to the Fargo city land fill and buried. Unharvested plant material in the field will be chopped and plowed into the ground.

Schedule of planned activities (project duration 3 years)

Spring 2000 - Field study will be planted at Prosper.
Summer 2000 - Study monitored for growth, development, and pests.
Fall 2000 - Study harvested, materials processed in lab and buried in land fill or field chopped and plowed into ground.
Winter 2000/01 - Analysis of data and report preparation.

(v) Location of research

Field site location will be near Prosper (46° 28' N, 97° 4' W, elevation 220m), North Dakota.

(vi) Statement of security provisions

Security recommendations have not been provided by the DEA. Security practices have been mentioned in research description.

(vii) Manufacture of import materials

- 160,000 viable seeds will be planted

Plants that develop (144,000) from the sown seeds (160,000) will produce approximately 1,300 to 2,600 kg of plant material (stems, leaves, seeds) from the entire study area.

3. Authority

(i) Institutional approval - See attached letter to DEA Form 225 indicating certification of fee exemption and research approval of North Dakota State University in compliance with DEA regulations.

NDSU NORTH DAKOTA STATE UNIVERSITY

College of Agriculture, Food Systems, and Natural Resources
315 Morrill Hall
Fargo, ND 58105-5435
701.231.8790
Fax 701.231.8520
deancoa@ndsuext.nodak.edu
www.ag.ndsu.edu/academics

North Dakota Agricultural Experiment Stati
315 Morrill Hall
Fargo, ND 58105-5435
701.231.7655
Fax 701.231.8520
exp-dir@ndsuext.nodak.edu
www.ag.ndsu.edu/research

July 27, 2007

Drug Enforcement Administration
Office of Diversion Control
Federal Register Representative (ODL)
2401 Jefferson Davis Highway
Alexandria, VA 22301

Re: Notice of Application
Manufacturer of Controlled Substances
Application of David C. Monson

To the Office of Diversion Control:

Pursuant to the regulations of the Drug Enforcement Administration (DEA), 21 C.F.R. §1301.33(a), North Dakota State University ("NDSU"), submits this comment in strong support of the application of David C. Monson for a registration for the bulk manufacture of a controlled substance in order to cultivate industrial hemp pursuant to North Dakota state law. Notice of the application appears at 72 *Fed. Reg.* 30632 (June 1, 2007). NDSU is an "other applicant" within the meaning of section 1301.33.

In 1997, the State of North Dakota enacted House Bill 1305, commissioning a study by the North Dakota State University ("NDSU") Institute for Natural Resources and Economic Development. That study was completed and published in 1998 (Agricultural Economics Report No. 402 (July 23, 1998)("North Dakota Hemp Study"). The North Dakota Hemp Study found that industrial hemp was grown in southeastern North Dakota during the 1940's, and concluded that industrial hemp is a viable alternative rotation crop and that cultivation of industrial hemp would create significant economic and business opportunities for the state's farmers. (North Dakota Hemp Study at 19).

Under that state law and amendments enacted in 1999, the main research center of NDSU serves as the location of the University's Agricultural Experiment Station, which is charged with the conducting research for the "development and dissemination of technology important to the production and utilization of food, feed, fiber and fuel from

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crop and livestock enterprises." N.D. Century Code § 4-05.1-05. The center is authorized to conduct research regarding industrial hemp; and to collect feral hemp seed stock and develop appropriate adapted strains of industrial hemp containing less than 3/10 of one percent THC in the dried flowering tops. *Id.*

NDSU submitted its own application to DEA for a registration for cultivation of industrial hemp for research purposes, on September 28, 1999. NDSU proposed to plant 160,000 viable seeds to produce 144,000 hemp plants in the field, and to evaluate characteristics including emergence, growth and development, phenology, pest incidence, seed and biomass yield and seed and biomass quantity. No action has ever been taken by DEA on NDSU's application.

In 2005, the State of North Dakota enacted a law permitting a person within the state to plant, grow, harvest, possess, process, sell and buy industrial hemp upon meeting certain requirements and obtaining a license from the Agriculture Commissioner. N.D. Cent. Code. § 4-41-01 (2006). The law defines "industrial hemp" to mean *Cannabis sativa* l. "having no more than three tenths of one percent tetrahydrocannabinol." *Id.*

Representative Monson obtained a license from the Agriculture Commissioner and subsequently applied to DEA for registration to manufacture a controlled substance in bulk, in order to cultivate industrial hemp pursuant to state law.

NDSU continues to believe that cultivation of industrial hemp would create significant economic and business opportunities for the state's farmers. Granting Rep. Monson's application would serve the interests of the state's farmers and would also enable to NDSU to carry out its statutorily mandated function of conducting research on industrial hemp, since the plants grown by Rep. Monson would be available for study and analysis as well as for the commercial uses set forth in his application.

Granting Rep. Monson's application would clearly be consistent with the public interest under the factors set forth in the Controlled Substances Act, 21 U.S.C. § 823(a). First, there is no risk of diversion of any controlled substances into other than legitimate industrial channels. As explained by Rep. Monson in his application, he will obtain viable seed only from sources which are not sources of seed for plants that can in any way enter the stream of commerce for drug marijuana. (If DEA were to grant NDSU's own application, one of those sources could be NDSU itself). There is no danger whatsoever that any drug marijuana would be cultivated in this field, the location of which is set forth in the license, and is subject to ongoing scrutiny and inspection by state officials. Further, following harvest, no controlled substance of any kind would actually leave Rep. Monson's property: the only products that would leave his farm are sterilized seed and oil, both of which are specifically exempted from the definition of "Marihuana" under the CSA, 21 U.S.C. § 802(16).

Second, Rep. Monson's cultivation of industrial hemp would be carried out, not only in compliance with applicable State and local law, 21 U.S.C § 823(a)(2), but pursuant to a regulatory regime directly created and implemented by the State of North

Dakota through its Agriculture Commissioner, which has issued strict regulations governing the cultivation of industrial hemp pursuant to state license. N.D. Admin. Code. § 7-14-02-04 requires that all industrial hemp seed be covered during transport to avoid the inadvertent dissemination of industrial hemp; that all volunteer plants not located in a licensed field be destroyed before reaching the seed producing stage; and that all nonexempt plant material be exported or sold to a DEA registered processor. The state regulations thus ensure that there will not be diversion of any parts of the industrial hemp plant other than those exempt from federal law.

Third, cultivation of industrial hemp pursuant to state law will help promote technical advances in the cultivation of industrial hemp in the U.S. NDSU's Agricultural Experiment Station would cooperate with and assist Rep. Monson, as well as the other applicant, Mr. Wayne Hauge, in ensuring that their initial and subsequent crops are cultivated in accordance with the best practices that will yield valuable lessons for these and other farmers in the state.

For these reasons, we urge the DEA to grant Rep. Monson's application for registration for bulk manufacture.

If you have any questions or need any further information concerning the above, please contact the undersigned.

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