

# HELICOPTER PESTICIDE APPLICATION

**NONE OF THE MYTHS.  
JUST THE FACTS.**

# WHY CHOOSE AERIAL APPLICATION

- **Timely applications not affected by wet ground conditions.**
- **Large acreage coverage in short time frame.**
- **No soil compaction.**
- **No production loss from tramping.**
- **No fungal disease spread from field to field.**
- **No damage to stock or tassel.**



# WHY CHOOSE HELICOPTER

- Excellent coverage especially in smaller or irregular fields.
- Ability to manoeuvre around obstacles and irregular boundaries due to slower flight speeds.
- No airstrips required.
- Usually exceeds production of fixed wing counterpart on most fields when factoring in ferry time.
- Where obstacles exist helicopters are able to get to optimum spray height quicker and remain at that height longer when exiting the field resulting in better coverage.



Zimmer Air Services Mix & Load Setup

2008/07/28

# WHY CHOOSE ZIMMER AIR SERVICES

- **34 years of service to the farmer & agribusiness.**
- **Over 3,000,000 ag/forestry acres sprayed.**
- **Highly trained & experienced crews.**
- **Modern, well maintained aircraft equipped with the latest in GPS spray guidance technology.**
- **Transport Canada Licensed Air Operator.**
- **Fully insured – 5M public liability/500K drift.**
- **Multiple ship fleet ensures timely applications.**
- **Proven safety and satisfaction record.**
- **Competitive pricing with other applicators.**



Headline Application on Corn

2008/07/28



**Ground transport ensures we can get to the field earlier, start spraying earlier and work later.**

**It also cuts down on operating costs, so we can remain competitive with other modes of aerial application.**



Helicopter cockpit with moving map, track spacing light bar, & flow monitor.

# Onboard Real time GIS Data to ensure complete coverage of crop.





## ALL HELICOPTER APPLICATORS ARE NOT CREATED EQUAL!

The operator of this helicopter, “NOT ZIMMER AIR” clearly demonstrates their lack of understanding of the principles of calibration and basic aerial application principles.

High Application Pressure

+

Incorrect Nozzle Selection

+

Incorrect Nozzle Placement =

Incorrect droplet spectrum (high percentage of fines) resulting in,

Excessive off target drift,

Increased evaporation,

Reduced active reaching the target vegetation decreasing efficacy.



**Another angle of a incorrectly set-up helicopter spray application.**

DEPARTMENT OF TRANSPORT

SPECIFIC  
CONDITIONS



MINISTÈRE DES TRANSPORTS

DISPOSITIONS PARTICULIÈRES  
D'EXPLOITATION

PART I

PARTIE I

Legal Name:  
Dénomination sociale:

ZIMMER AIR SERVICES INC.

Certificate No.  
N° du Certificat

4918

These specific conditions, in this Part, are issued concerning areas of operations, types of services and any special conditions.  
Ces conditions particulières, dans la présente partie, sont délivrées concernant les régions d'exploitation, les types de services et toutes conditions spéciales.

AREAS OF OPERATIONS.....REGIONS D'EXPLOITATION

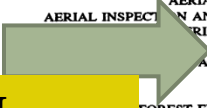
BETWEEN POINTS IN CANADA.....ENTRE POINTS AU CANADA  
BETWEEN POINTS ABROAD.....ENTRE POINTS A L'ETRANGER

TYPES OF SERVICE.....TYPES DE SERVICES

DOMESTIC.....INTERIEUR  
AERIAL WORK.....TRAVAIL AERIEN

TYPES OF AERIAL WORK SERVICE.....TYPES DE SERVICE DE TRAVAIL AERIEN

AERIAL ADVERTISING.....PUBLICITE AERIENNE  
AERIAL CONSTRUCTION.....CONSTRUCTION A MOYEN D'AERONEFS  
AERIAL INSPECTION AND SURVEILLANCE.....INSPECTION ET SURVEILLANCE AERIENNE  
AERIAL PHOTOGRAPHY.....PHOTOGRAPHIE AERIENNE  
AERIAL SPRAYING.....PULVERISATION AERIENNE  
AERIAL SURVEYING.....LEVE TOPOGRAPHIQUE AERIEN  
EXTERNAL LOAD.....CHARGE EXTERNE  
FIRE FIGHTING.....LUTTE CONTRE INCENDIE  
FOREST FIRE MANAGEMENT.....GESTION DES INCENDIES DE FORET  
WILDLIFE MANAGEMENT.....GESTION DE LA FAUNE



**AERIAL  
SPRAYING**

SPECIAL CONDITIONS.....CONDITIONS SPECIALES

Part/Partie I  
Approved/ Approuvée: 1999.05.07  
Remplace celui approuvée 1998.02.04  
Supersedes the one approved 1998.02.04  
26-0390 (10-96)

*Brian Mandell*  
For Minister of Transport - Pour le ministre des Transports



# Transport Canada Operating Certificate

A number of legal requirements must be in place before operating an aerial spray service.

Transport Canada Operating Certificate

Pesticide Applicators License


Ministry of Environment Operators License

Insurance

Please ask us or your applicator to show proof.

# If the applicator you hire is not legally operating, their insurance is not valid and you may not be covered.

## MOE Operators Certificate

 Ontario

THE PESTICIDES ACT  
AND REGULATION 914  
LOI SUR LES PESTICIDES  
ET RÉGLEMENT 914

PESTICIDES OPERATOR LICENCE  
PERMIS D'EXPLOITANT

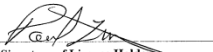
Issued to  
Délivré à

PAUL F ZIMMER  
449974 ONTARIO LIMITED/ ZIMMER AIR SERVICES INC  
RR 7, 9706 BURKE LINE  
BLENHEIM ON

By the Ministry of the Environment, to operate an extermination business, as prescribed by the Pesticides Act and Regulation, and subject to the limitations thereof.  
Par le ministère de l'Environnement pour exploiter une entreprise de lutte antiparasitaire selon les dispositions de la Loi sur les pesticides et du règlement qui en découle.

Licence No  
Permis n°  
02-01-03449


Expiry Date  
Date d'expiration  
February 15, 2009

  
Signature of Licence Holder  
Signature du titulaire de la licence

Authorized by the Director  
Pesticides Act Section 5 (2)  
Autorisé par le Directeur  
Article 5 (2) de la Loi sur les pesticides  
Ministère de l'Environnement

0 13193

## Certificate of Insurance

 THE MAGNES GROUP INC.  
BROKED INSURANCE SOLUTIONS

7599 Yonge Street  
Thornhill, ON L3T 1Z5  
Phn: 905-889-4933  
Fax: 905-889-0205

**CERTIFICATE OF INSURANCE**

This is to certify that insurance as herein described is in full force and effect:

**DETAILS OF COVERAGE**

**Insured:** Zimmer Air Services Inc.  
RR#7 9706 Burk Line  
Blenheim, ON NOP 1A0

**Insurer:** Global Aerospace  
Underwriting  
**Policy #:** 21300387-ON-09  
**Term:** 11/01/09 to 11/01/10  
mm/dd/yy mm/dd/yy

**Aircraft:** all aircraft owned, leased and operated by the Named Insured


**Liability:** \$ 5,000,000 Combined Single Limit Bodily Injury and Property Damage  
Including Passengers

**Chemical Drift Liability:** \$500,000 any one aircraft/any one occurrence/\$1,000,000 aggregate  
Excluding C-FWMU R44 and C-FTZV R22

**Other:** Several Liability Notice: The subscribing insurers obligations under contracts of insurance to which they subscribe are several and not joint and are limited solely to the extend of their individual subscriptions. They subscribing insurers are not responsible for the subscription of any co-subscribing insurer who for any reason does not satisfy all or part of its obligations.

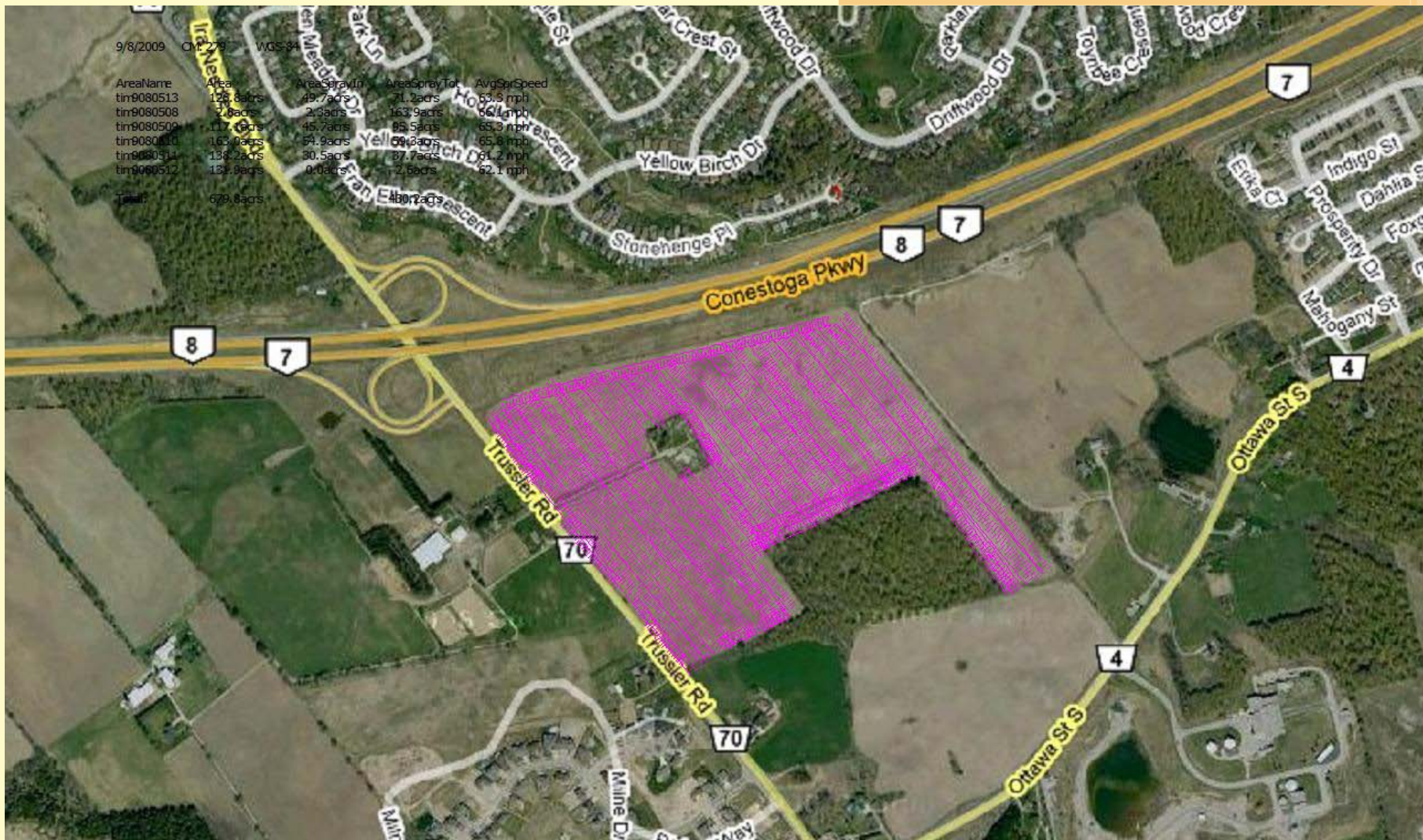
The insurance afforded is subject to the terms, conditions and exclusions of the applicable policy. This Certificate is issued as a matter of information only and confers no rights on the holder and imposes no liability on the Insurer. The Insurer will endeavor to mail to the holder of this Certificate ten (10) days written notice of any material change in or cancellation of this policy but assumes no responsibility for failure to do so.

Date: November 9, 2009

The MAGNES Group Inc.  
  
Authorized Representative

# What Zimmer Air Services Provides

- Serviceable helicopter equipped with a properly calibrated spray system.
- GPS Spray Guidance System
- Mix and Load support equipment.
- Water
- All manpower required to carry out the application.
- Copy of GIS data upon request.



Example of GIS data overlain on Google earth.

# What The Grower Provides

- **Directions to farm or field.**
- **A field map & GIS shape file if possible.**
- **Location on the map of any test strips to be left.**
- **Mix & Load site, if required.**
- **Identification of any sensitive areas, ie. (horse barn) or potential objectors to the spray operation.**
- **Application spray window timing.**
- **The correct amount of pesticide.**
- **Billing and contact information.**



**Headline Treated**

**Untreated**

200



**Headline Treated**

**Untreated**

2008/11/22

Photo courtesy of Stephen  
Denys Pride Seeds.





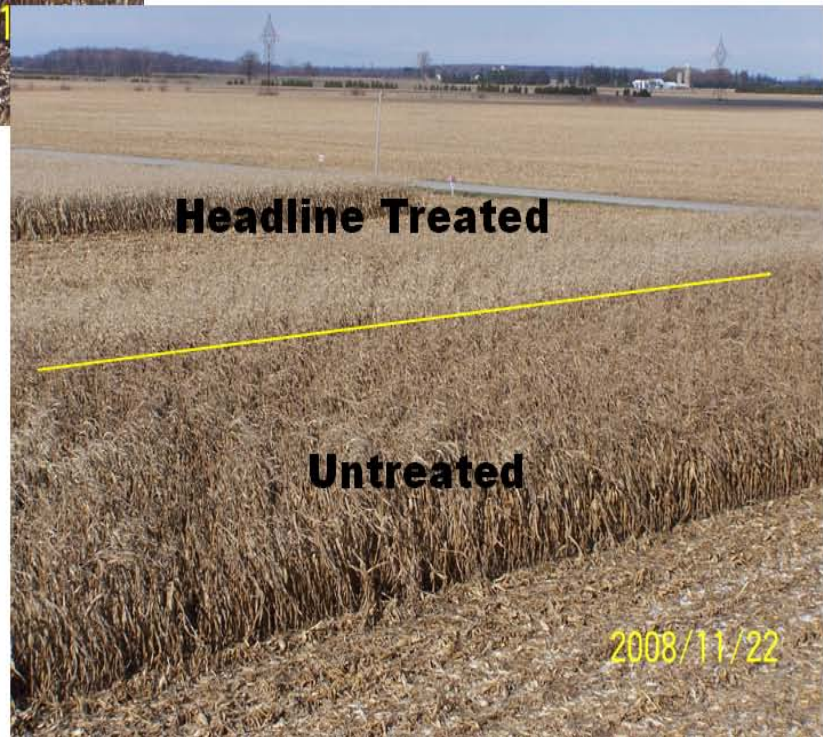
## **A8168G3 Headline Treated**

244.4 bu/acre first year corn  
240.2 bu/acre second year

## **A8168G3 Untreated**

233 bu/acre first year corn  
229.5 bu/acre second year

Crop protection product  
applied by Zimmer Air and  
assessed by Stephen Denys  
Pride seed rep on his own farm.





# RESTRICTIONS

**Some fields may not be effectively treated by helicopter because of the presence of hydro lines, wind farms, or proximity to human habitation.**

**We will accept the application job only if we can be assured that the safety of the pilot, and the public will not be compromised.**

**We may also turn the application job down if we cannot be assured that the quality of the application and subsequent results will not be compromised due to the obstructions.**

# CONTACT INFORMATION

- **Zimmer Air Services Inc.**  
**9706 Burk Line,**  
**Blenheim**  
**Ontario. NOP 1A0**

**1-800-665-5485**

**1-519-676-9550**

**info@zimmerair.com**

**www.zimmerair.com**