## New book on air-assisted spraying now available

Dr. Jason Deveau (@spray\_guy), Application Technology Specialist, OMAFRA

We're pleased to announce that "Airblast101 – Your Guide to Effective and Efficient Spraying, 2<sup>nd</sup> edition" is now freely available as an ePub, or at cost via print-on-demand publishing, via <a href="https://www.sprayers101.com/airblast101">www.sprayers101.com/airblast101</a>.

Airblast101 began in 2010 as a classroom-based workshop for Ontario's airblast sprayer operators. It was intended as a primer and decision-support tool for operators to become safer, more effective and more efficient.

After several iterations, the first textbook edition was made available in 2015. It won the 2016 Canadian Agri-Marketing Association's "Certificate of Merit" in the Special Publications Category. Well over a thousand copies have been circulated worldwide... but it was never really intended for an international audience.

In late 2019, working with US sprayer specialist Mark Ledebuhr (Application Insight LLC) and with contributions from NZ sprayer specialist Dr. David Manktelow (Applied Research and Technologies Ltd.), we began developing more advanced and globally-relevant content.

The familiar "Airblast 101" title is, perhaps, no longer accurate. The original emphasis was on the classic, low profile radial design developed in the 1940's when it was recognized that pushing spray with air gave better coverage with less water. These sprayers continue to dominate in specialty crops around the world because they are simple, economical, and can operate effectively across a wide range of canopy forms and planting geometries.

But, air-assist sprayer design has evolved and diversified. With this new edition we've broadened the scope to include all air-assist sprayers. We hope to introduce you to equipment and practices you may never have personally encountered. We will also give you the tools to assess their relevance to your operation. This required a deeper dive into the physics of spraying, but we've kept the tone conversational and relied heavily on illustration to make concepts accessible.

The new edition continues to focus on three central themes:

- Understanding the forces that influence air and spray droplet behaviour.
- How to configure a sprayer to optimize coverage and minimize waste.
- How to evaluate spray coverage.

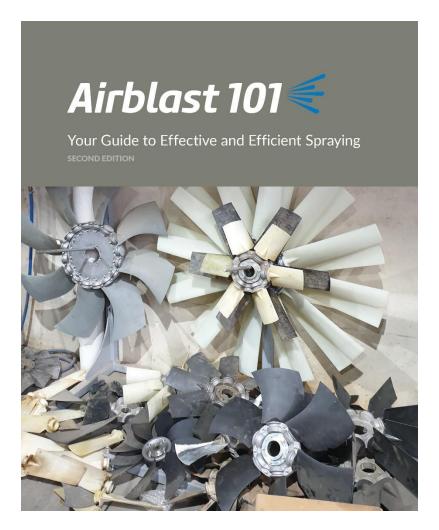
So, perhaps you're new to air-assist spraying and deciding which sprayer is right for your operation. Perhaps you're an experienced operator re-evaluating your practices. Maybe you're a farm manager, a government pesticide regulator, an agricultural extension specialist, an equipment manufacturer, a consultant, an agrichemical sales representative or a researcher. No matter your perspective, if you're interested in air-assisted spraying, the new edition will have something for you.

## **Contents**

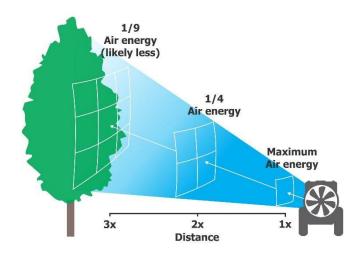
- Chapter 1: The six elements of spraying
- Chapter 2: What is an air-assist sprayer?
- Chapter 3: How air behaves
- Chapter 4: Air handling systems
- Chapter 5: Liquid handling systems
- Chapter 6: Atomization systems and droplet size
- Chapter 7: Canopy
- Chapter 8: Spraying strategy
- Chapter 9: Measuring sprayer air
- Chapter 10: The ribbon test
- Chapter 11: Configuring sprayer air
- Chapter 12: Transfer efficiency
- Chapter 13: Canopy deposition
- Chapter 14: Reconciling rate and coverage
- Chapter 15: Assessing coverage
- Chapter 16: Calibration
- Chapter 17: About hydraulic nozzles
- Chapter 18: Loading and mixing
- Chapter 19: Sprayer sanitization
- Chapter 20: Start-up and storage
- Chapter 21: Stewardship
- Appendix 1: Sizing a pump
- Appendix 2: Rate controllers
- Appendix 3: Product rate calculations
- Appendix 4: Electrostatics



Caption: Turbulent Eddy and Laminar Flo – Your guides to the world of air-assisted spraying



Caption: The cover



Caption: All new content, 33% longer, and more than 200 colour illustrations and figures.