GROWING ORGANIC

Manitoba Organic Alliance

MOA NEWSLETTER No. 1 - JANUARY 2018

Photo credit: Alan McKenzie, Nesbitt, MB

In This Issue…

Introducing the MOA Organic Agronomy Newsletter!

Greetings! Welcome to the first edition of Growing Organic! Growing Organic is a new publication by Manitoba Organic Alliance's production specialist Katherine Stanley. This newsletter, published monthly, will highlight research, production topics, existing resources and events. The newsletter will be available through the Manitoba Organic Alliance email list and on the website.

Organic Agriculture in Canada and the Prairies—Latest numbers (2015, COTA)

Canada:
- 2.43 million acres
- 5053 organic operations
- 4045 primary producers
- 618 livestock operations
- 1542 processors, manufacturers & retailers

Prairies:
- 1.4 million acres
- 1342 primary producers
- SK: 361 884 ac cereals
- AB: 113 500 ac cereals
- 94% of all organic pulses

Manitoba:
- 91 618 acres certified organic
- 138 primary producers
- 20% of organic oilseeds
- 24 989 ac of organic cereals
- 32 organic livestock
- 47 certified processors

	Fruit & Nuts		Fresh Vegetables & Root Crops		Field Crops		Pasture & Forage		TOTAL	
	2014	2015	2014	2015	2014	2015	2014	2015	**2014**	**2015**
BC	2,300	2,380	4,012	8,445	13,398	15,981	587,255	588,973	**606,966**	**615,779**
AB	54	795	1,579	6,286	117,241	137,216	322,854	281,359	**441,727**	**425,656**
SK	116	221	598	5,383	499,982	490,893	367,396	396,663	**868,092**	**893,161**
MB	46	109	2,379	1,160	29,711	34,134	49,981	56,215	**82,117**	**91,618**

For full report details : Organic Agriculture in the Prairies

Planning crop rotations in 2018

As the 2018 field season approaches it's time to start planning what's going into the field. There are several resources available through the pivot and grow website, Government of Manitoba cost of production budgets and Canadian Organic Growers field crop handbook to help with the planning process.

Green Manure Basics

What does a green manure do?

The primary purpose of green manures is for nitrogen fixation. Green manures that contain high percentages of legumes, fix nitrogen from the atmosphere through biological nitrogen fixation leaving it in the soil for the following crops to take up. Green manures also help compete with weeds, reduce soil erosion and increase diversity.

Figure 1: 4010 pea/oat green manure

When do you need a green manure?

Green manures should be grown every 2-5 years depending on rotation, soils and climate. Research at the University of Manitoba has found benefit of a green manure in rotation every three years.

Important tips to remember:

- Inoculate your green manures; legumes must be inoculated with Rhizobia (the N-fixing bacteria).
- Check if your legume is fixing N by searching for active nodules. Dig up roots after a month of growth, break open nodules and check that they are pink inside.
- Terminate green manures at full flower.
- If you harvest the seed or remove biomass, much of the fixed N and other nutrients are removed
- Green manures may make other nutrients available from soil reserves, however **only brings new nitrogen into the soil.**

Green manure resources (research and practical):

- **Pivot and Grow, Green Manure Toolkit**
- **Canadian Organic Growers, Field Crop Handbook, 3rd edition**
- **COG Library**
- **Natural Systems Agriculture website**
- **Organic Agriculture Centre of Canada website**

Are your green manures productive?

Determining the productivity of your green manures will tell you how much nitrogen is produced, and help with future management decisions.

1) Collect a known area sample of the green manure (collect several from different areas in the field)
2) Dry and weigh
3) Send in sample for a feed test to determine N content
4) Calculate N per hectare/acre

Biomass (lb/ac) x N% / 100 = lb/ac N produced

Figure 2: Joanne Thiessen Martens demonstrating green manure sampling techniques at a field day in Carman

Quick tip: Make sure over 50% of your mixture is a legume. Can be done by eye or separated in the field prior to drying

Resources: Calculation guide can be found in the COG Field Crop Handbook, 3rd edition.

What you missed in the coffee shop!

In November Lana Shaw joined us from the SERF to talk about grain intercropping.

Highlights:

Considerations at seeding time: seed size, seeding depth

- In pulse based mixtures, seed pulse at >75% monocrop pulse seeding rate
- Reduce rates for cereals, oilseeds and competitive crops
- Aim for >100% seeding rate when combined.

What plant types?

- Different plant structures can decrease lodging and disease
- Consider maturity dates of each crop (avoid shattering)

At harvest:

- Set combine for large seed, turn down wind speed, to retain small seeds
- Monitor grain moisture, may need to separate before storage.

Large Green Lentil – Brown Mustard

Figure 3: Photo credit, Lana Shaw. Lentil, mustard intercrop reduces lodging

Over-yielding is a bonus!

True benefit of intercropping is yield stabilization!

Kevin Elmy, from Friendly Acres farm in Saskatchewan joined us on the call in December presenting his talk titled "Digesting Cover Crops." Highlights:

- Include cover crops and livestock to build organic matter and feed the microbial community
- Match your cover crop blends with your grazing goals.
- **Different plant types add different characteristics to the mix**:
  - Grasses: biomass, fibrous roots, mycorrhizal host
  - Legumes: fix N, high P requirements
  - Broadleaves: nutrient scavengers
  - Forbs: native to the prairies, add diversity
- **Grazing cover crops**: improves soil biology, cycles nutrients, increases organic matter, reduces tillage, breaks disease cycles. **Adds $$ to the green manure year!**

Figure 4: Photo credit, Kevin Elmy

Coffee shop talks are monthly conference call presentations. Previous talks are available on the natural systems agriculture youtube page. To learn more call or email Katherine Stanley (see below)

5 tips for good record keeping with Stuart McMillan

1) Place extra effort on maintaining inventory management

- Keep records in one central location
- Keep related sale documents together to avoid confusion!

2) Keep an ongoing, chronological bin record—time grain added, moved or sold. Carry over each year and keep bin records together!

3) Focus efforts on records that have dual purpose and allow for better business decisions. These records may also be used for agronomic and economic decisions.

4) Use a system that works for you! You do not have to use your certification bodies records system, but ensure all basic components are covered.

5) Keep it up! Once a system is developed that works for you and staff, fill it in as you go. Saves time and is more accurate!

Resource: COG Record Keeping For Organic Growers

Upcoming events:

- **January 18th**: Organic day at Ag Days in Brandon. MNP room (AM), Upper curling club (PM). Call 204-474-6236 for more information. All-day trade show in Upper Curling Club. Click for more info.
- **February 23-24th** : Prairie Organics: Think Whole Farm conference, Brandon, MB. Register today! www.prairieorganics.org or call 204-871-6600

Stay up to date with events, coffee shop talks and more at manitobaorganicalliance.com

Ideas for newsletter topics? More questions? Contact Katherine Stanley :

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