

HDC White Bean and Black Bean Production Guideline

Hensall District Co-operative is committed to the White and Black Bean business. We believe that high quality production starts with our producers. The following guidelines may help to assist you in this year's production.

Field Location

Fields best suited for White and Black Bean production are well drained with medium textured soils.

White and Black Beans must be grown in proper rotation to avoid diseases such as white mould and root rot. They should be grown in at least a three - year rotation with corn and cereal crops.

Genetically Enhanced (GE) concerns

The contract edible bean fields will have no GE soybeans grown in the previous year.

Isolation of the edible bean crop is required. A Grower can not grow GE crops in the fields adjacent to the contracted crop unless a buffer strip of 3 metres is present.

When harvest equipment (trucks, wagons, dump buggies, combines, beans harvesters) are shared between GE crops and Edible beans, the GE crop must be harvested at the end of the season.

Planting Date

Depending on the crop heat unit rating in your area, White and Black Beans are generally planted between late May and mid-June.

To avoid emergence problems, plant into warm, moist soils. Planting in cool, damp conditions may reduce fast emergence, population and seedling vigour.

Seed

Hensall District Co-operative will supply you with certified Ontario or western grown seed to reduce chances of seed-borne diseases such as bacterial blight and anthracnose. Most White and Black Bean seed will be treated; however, if untreated seed exist, we suggest using DCT to protect against seed decay organisms, wire worm and seed corn maggot.

Seeding Rate & Row Spacing

Row Width	Final Stand Plants per acre	Seeds per foot of row	Pounds per acre
30 Inches	100,000 to 110,000	5.7 to 6.3	45 to 50
20 Inches	110,000 to 130,000	4.1 to 4.9	50 to 59
15 Inches	130,000 to 150,000	3.7 to 4.3	59 to 68

*Plant population will vary greatly due to seed size; therefore, always check individual lots for number of seeds/ lb. Calculations are based on 2200 seed/lb.

Soil Fertility

Adequate soil fertility is a must for growing top quality beans. We recommend soil testing to determine proper fertilizer application rates for Phosphorus and Potash.

Nitrogen requirements for White and Black Beans will be between 30 to 60 lbs./acre, but will vary depending on field history. If bronzing or root rot has been a problem in the past, beans will respond to additional nitrogen.

For specific fertility requirements, see your HDC Field Marketer.

Weed Control and Pesticide

Weed free fields allow you to optimize yields, reduce disease pressures and ease pulling and harvesting.

Consult “Publication 75” – “Guide to Weed Control” and see your HDC field marketer for specific programs.

The producer must use only Canadian approved pesticides as per label instructions in their White and Black Bean production program.

Records of Agents, Rate, Method, Date and Days to Harvest

Insect Control

Monitoring insect population will optimize yield, and reduce disease pressure.

Leafhoppers, spider mites, Mexican bean beetle and Tarnished plant bug are the most common insects that can cause crop injury if proper conditions exist.

In recent years, an increase in the populations has been noted. Timely application of Dimethoate will be required for insect control when threshold levels are met.

For specific recommendations, contact your HDC Field Marketer. Use only registered insecticides.

Plant Growth Stage	Leafhopper Threshold
unifoliate	0.25 leafhopper / leaf
1 st trifoliate	0.5 leafhopper / trifoliate
2 nd trifoliate	1 leafhopper / trifoliate
4 th trifoliate	2 leafhopper / trifoliate

White Mould

White Mould is a disease that restricts the bean’s ability to set pods fully, resulting in uneven early ripening, small seeds and reduced yields. Prior to and during the flowering period, symptoms or white mycelium or water-soaked lesions can be present on the plant. With prolonged periods of warm, moist conditions, plants can appear wilted, lighter in colour and an odour may be detected.

Once symptoms are present crop destruction and yield reduction has already occurred.

To date, the most effective way to control white mould is through the use of a fungicide.

Consult your local HDC Field marketer for rates and product choices.
Other ways to minimize disease pressure is to rotate out of beans (including soybeans), limit nitrogen usage and grow crops in wider row widths.

Harvesting

The harvesting of a quality product will significantly improve your bottom line.

Beans can either be pulled and windrowed or direct harvested.

White Bean harvesting at moistures between 18 – 20% will greatly reduce mechanical damage such as splits and cracked seed coats.

Black Bean harvesting at moistures between 16 – 19% will greatly reduce mechanical damage such as splits and cracked seed coats and preserve colour for export.

Fine tuning your combine will reduce this potential problem.

Please review combine clean out procedures. You should ensure your combine has been completely cleaned and flushed of any contaminated products

The Grower must take steps necessary to prevent contamination from glass, fuels, treated seed harmful contamination and other market classes.

In order to avoid contamination, combines must be cleaned properly.

It is understood that it is critical to produce quality beans that meet or exceed our customers' quality requirements.

Please note, improper on-farm drying may cause quality problems for our customers and ourselves. We reserve the right to reject or take on a consignment basis, improperly on – farm dried beans.

Payment for white beans will be made on the basis of 18% moisture as standard and for black beans will be made on the basis of 17% moisture.

Transportation

Inspect to ensure that all residual products from previous loads are not present in the truck/wagon that white and black beans are delivered in. All corners, tarps, airlocks and unloading spouts should be free and clear of residual products

Narrow Rows & Direct Harvesting

Advantages

Less equipment required.

Reduces risk of losing crop during wet years.

Increased yield during years when White mould isn't a problem.

Disadvantages

Extra seed required.

Good chemical control is essential because cultivation is impossible.

Must use a desiccant spray to control green weeds or regrowth of beans at harvest.

Ensure fields are rolled and free of stones for combining.

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