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South Coastal BC Compost Guide

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What is this Compost Guide about?

This publication is an updated version of the 2019 'South Coastal BC Compost Guide' SPEC document created with the purpose of providing information to farmers about locally available composts, to aid in compost selection and to discuss its importance in farm use.

Why are local composts important?

Soils on small farms and gardens in south coastal BC are often in need of supplemental organic matter and nutrients, especially nitrogen. When sourcing agricultural inputs to add organic matter and nutrients to the soil, it is vital to consider the options that are available locally. Using composts derived from local feedstocks (e.g. livestock manures, food wastes and yard trimmings), instead of imported, conventional, or organic nutrient sources, reduces the environmental impact in the region and can be more economical. This guide was created to help local agriculture become more nutrient self-sufficient, because of excess nutrients in this region that, left unused, can cause environmental problems.

Why should I apply compost to my farm?

Some benefits of using compost:

- Source of nutrients
- Increased nutrient retention
- Increased water retention
- Improves soil structure and aeration
- Increased soil organism abundance and diversity which improves nutrient cycling

Composts and composted manures can be a good source of nutrients (depending on the quality of the compost) and soil organic matter. Composts act as a nutrient reservoir where nutrients are released slowly over a longer period of time (years). Increased organic matter provides food for soil organisms, which are responsible for decomposition and releasing nutrients into plant available forms.

Organic matter in the form of composts increases the water and nutrient holding capacity of soils, which is especially important for sandy soils. A higher nutrient holding capacity allows soil to "hold" or bind nutrients to its surfaces. This is important because nutrients are less likely to be lost through leaching and erosion. Increased water retention conserves water in the top layers of soil, where crops require moisture. This reduces irrigation requirements in the summer.

Fine and medium textured soils (found in the Fraser Delta) are susceptible to compaction (after tillage, rainfall and/or other heavy machinery) which results in poor water penetration, ponding, and reduced air flow. Adding organic matter helps to improve soil structure, reducing the likelihood of compaction. Thus, a healthy soil structure promotes pore spaces and stable soil aggregates which allow for root growth and penetration of air and water.

What should I consider before purchasing my compost?

Understand your soil, crop nutrient requirements and locally available composts.

Step 1: Determine the soil texture of your farm. This can be done through hand texturing or a lab soil test. Refer to the following video to help you roughly determine your soil texture: https://www.youtube.com/watch?v=Mq4OjwTKXjU.
This is important because sandy/coarse-textured soils will have different organic matter requirements and will require more nutrient inputs (leaching occurs very easily) than clayey/ fine-textured soils.

Step 2: Soil test. Previous management and vegetation on a site can alter soil physical and chemical properties. Doing a soil test before selecting a compost will help create a better soil management plan, allowing you to provide sufficient nutrients to your crops without causing crop or environmental damage. Additionally, understanding soil nutrient content in light of crop needs reduces the likelihood of over-application, saving farmers time and money in the long run. Conducting soil tests for many plots on a farm can be financially prohibitive for small-scale farms, especially in mixed vegetable production systems. Therefore, farmers can consider sampling a "benchmark plot" that is representative of the farm soils and management.

Soil tests are important as they help you understand the chemical properties of your soil. This provides information such as pH, which may need to be altered if it is not within the requirements of your crop, as the acidity of a soil can change nutrient availability or be intolerable for plants. Not only do soil tests provide insight into levels of nutrients like nitrogen phosphorus and potassium, but also identifies deficiencies or excess of micronutrients. Certain micronutrients such as trace elements can inhibit plant growth if not present in the native soil, so a monitored application may be required. This application can be difficult without a soil test, as minute differences in the concentrations of these nutrients can be the difference between limiting plant growth and becoming toxic. An example of this is boron, which is often a yield limiting nutrient in sandy soils in Metro Vancouver.

Over-application of nutrients can result in environmental problems—especially to our water quality and will be discussed in another section. Soil tests will become more important as *The Agricultural Waste Control Regulation* is now being changed to the *Code of Practice for Agricultural Environmental Management* and will have stricter regulations on application of nitrogen and phosphorus.
Step 3: Consider crop nutrient requirements. Certain crops are heavier nutrient feeders and require more nitrogen than others. Table 1 in *Soil Fertility in Organic Systems: A Guide for Gardeners and Small Acreage Farmers*, roughly divides crops based on low, medium, and high nitrogen needs (https://s3.wp.wsu.edu/uploads/sites/2073/2014/09/20191024_Cultivating-Success-Viva-Farms.pdf).
However, keep in mind that different varieties of the same crop will vary in their nutrient requirements.

Step 4: Once soil texture, current soil nutrient status, and crop nutrient requirements are understood, a suitable compost can be selected. Table 1, which shows the compost nutrient analysis, will help you decide what kind of compost you need. Table 2, listing the price, delivery and location of the compost company will help address other needs and constraints to purchasing.

How do composts differ?

Not all composts are created equal. Feedstock mixture, processing and storage practices determine the compost characteristics and possible contaminants.

The feedstock used in municipal organic waste facilities mainly consists of residential food waste and yard trimmings. As a result, there is a higher risk of contamination of visible and non-visible traces of heavy metals, plastic and glass. However, composting facilities must adhere to the Organic Matter Recycling Regulations (OMRR), which set thresholds of levels of contaminants allowed prior to land applications. Compost companies can go beyond these requirements and choose to become OMRI (Organic Materials Review Institute) certified, meaning the level of contaminants is low enough to be suitable for certified organic production systems. Composted livestock manures are typically a mix of feces and urine along with bedding (sawdust, straw, or sand). These composts run the risk of fecal contamination if high temperatures (>55℃) in composting are not sustained for a sufficient time to kill harmful pathogens. Additionally, composted manure may contain weed seeds at time of application if processing did not reach the required temperature to destroy seeds.

The process and infrastructure of a composting facility influences compost characteristics and quality. Managing the appropriate mixture of feedstocks, moisture, temperature, and oxygen as well as ensuring adequate covering of the composting material is vital. Proper handling reduces nutrient losses, minimizes smell and improves the stability of the compost. The scope of this document did not encompass compost facility management, hence our reliance on compost analysis data for indicators of compost quality. Talking to other farmers about their experience with a certain compost company for quality control is recommended.

How do I ensure I am applying a good quality compost?

Evaluate quality indicators including compost stability, maturity, contaminants, and nutrient content.

Compost stability and maturity

Compost stability is a measurement of the level of biological activity in the compost. A compost is unstable when the level of biological activity is high, meaning the feedstock material has not been fully decomposed and microorganisms are highly active. High temperatures within a compost pile are indicative of unstable composts with highly active microorganisms. If an unstable compost is applied to the soil, it can potentially burn the plants because of the high temperature or partial decomposition products such as ammonia. Unstable composts can still be applied but should be incorporated into your soil before planting or not applied too close to seedlings. Alternatively, if your compost arrives hot, you could cover and store the compost on-site for a few weeks until the temperature stabilizes.

Compost maturity refers to the neutralization of potentially harmful compounds for plants which can be created during the composting process. If an immature compost is applied, it can harm plants by limiting seed germination and root growth or by killing sensitive plants. Like an unstable compost, it can be applied if it is early enough in the spring season or covered and stored for a period of time on-site. Immature composts can often be identified by their strong odour.

You can contact your compost supplier for further information about the maturity and stability of the compost. We received a certificate of analysis from Transform Compost Products indicating their compost had a stability index of 8, meaning "inactive, highly matured compost, very well aged, possibly over-aged, like soil; no limitations for usage". We encourage inquiring about compost stability tests when you purchase your compost to better understand the nature of the product you are applying to your fields. The newest method for testing is known as the Solvita test kit which measures these parameters for compost quality. These kits are quite expensive for individual farmers, who would likely require it once a year, but would be a valuable investment for compost companies to prove the quality of their compost. If you're not sure about the maturity and stability of your compost, it is always a good idea to store it on-farm for some time to allow it to cure. Refer to the *Code of Practice for Agricultural Environmental Management*, for regulations around storage of compost on farms. Another option for determining stability and maturity is to apply compost in a small area and see if seedlings are damaged.

Contaminants

There are certain contaminants that are visible (i.e., plastics, broken glass, sharp metal objects and noxious weed seeds) or not visible (i.e., heavy metals, pesticides, herbicides, pathogens). Most composts available in south coastal BC have undergone thermophilic (high temperature) decomposition, which reduces the risk of pathogen and weed seed survival in the end product. This assumes that the composter thoroughly mixes the pile and that all areas reach temperatures of 55℃ or more for a sufficient period. However, there are certain sites and conditions where these contaminants may be an issue.

Pesticides and herbicides typically degrade in the environment and only become an issue when they are a persistent chemical. The presence of pesticides and herbicides in local yard trimmings composts tends to be infrequent due to the low use of persistent chemicals for landscape management in Metro Vancouver. However, if a compost is purchased from a conventional farm, there are certain persistent pesticides and herbicides that can be harmful such as clopyralid, aminopyralid, picloram and chlorpyrifos. Therefore, we recommend inquiring with the farm supplying the compost if these chemicals have been applied.

Noxious and invasive weeds can also be problematic in facilities where the compost has been stored for a long period of time (wind-blown seeds) or where landscape waste is dumped in contact with finished compost. If sand is mixed into the compost, this may introduce weed seeds and other contaminants. When there is worry about weeds, a separate pot test is recommended. This requires applying compost in a pot with soil, watering it, and seeing if weeds sprout over a period of time.

Salinity (seen as high Electrical Conductivity in Table 1), another non-visible factor, can be harmful to plants, but is a common characteristic of nutrient rich composts and not of concern if application rates are appropriate, and if seedlings are not exposed to fresh applications.

In British Columbia, the Organic Matter and Recycling Regulation (OMRR) regulates composting processes and compost products. OMRR is used to determine if a compost is stable, mature and pathogen-free as well as if it contains acceptable quantities of trace elements and foreign materials (plastics, glass, metals). OMRR classifies compost as class A and B depending on process and quality criteria. One of the main differences is the acceptable levels of contaminants (shown in the table

below). They also identify certain allowable contaminant levels for agriculture as highlighted below. Based on this information, class A compost falls within the allowable amounts for agricultural use. We encourage you to question compost companies for this information as the values will vary by batch.

Substance	Class A compost (µg/g)	Class B compost (µg/g)	Agricultural Land Use (µg/g)
Arsenic	13	75	N/A
Cadmium	3	20	N/A
Chromium	100	1060	N/A
Cobalt	34	150	40
Copper	400	2200	N/A
Lead	150	500	N/A
Mercury	2	15	N/A
Molybdenum	5	20	5
Nickel	62	180	150
Selenium	2	14	2
Zinc	500	1850	N/A

Nutrient analysis of composts

Table 1 at the end of this document shows the nutrient analysis of different local composts. It is very important to consider that nutrients in composts are relatively more stable and are released relatively slower than manure and incorporated cover crops (green manure). Please keep in mind that the values shown in Table 1 fluctuate from batch to batch and should only be used as a reference. For more information about interpreting the nutrient analysis of composts, please check out the Glossary section.

When should I apply my compost?

Timing of compost application depends greatly on nitrogen mineralization (i.e., the conversion of nitrogen to plant available forms through the activity of soil organisms). However, the usual time to apply compost is in the spring when the soil temperature is warm enough to stimulate microbial activity.

Since coastal BC experiences heavy rainfall during the fall/winter months, if compost is applied too early then plant available nitrogen (PAN) will substantially decrease via leaching by the spring. Therefore, compost application in spring is recommended.

The timing of compost application is also dependent on nitrogen release rates and crop requirements for nitrogen. Carbon to nitrogen ratios less than 20 are sufficient to ensure nitrogen mineralization and release but have the potential of burning new seedlings if compost is unstable/immature. Therefore, composts with a C/N ratio below 20 should be applied and incorporated into the soil a few weeks before planting begins to allow it to stabilize. With slow-release organic sources, time should be

allowed for PAN release to take place prior to a crop's large nutrient demand period during its growth phase.

Under the *Code of Practice for Agricultural Environmental Management* it is not permitted to apply nutrient sources (which includes any materials produced in accordance with OMRR) to land in a high-precipitation area (characterized by an average precipitation of 600mm or more between October 1 and April 30) between November 1 and February 1 of the next year and/or during strong, divergent windy conditions. Farms located in vulnerable aquifer recharge areas and phosphorus-affected areas require nutrient management plans. For more information on the regulatory requirements, see: https://alpha.gov.bc.ca/gov/content/environment/waste-management/industrial-waste/agriculture

How much compost should I apply?

The BC government has created a nutrient management calculator that can help determine how much compost, manure etc. to apply to your farm based on the compost analysis, soil test and other inputs such as cover crops. This calculator requires location, number of fields and optional soil test inputs that will let you know if you are supplying sufficient amounts. However, if you have not done a soil test, these results will only be useful for nitrogen applications. Please refer to the link below for more information:

Government of B.C Nutrient Management Calculator

Please keep in mind that these are relatively rudimentary suggestions as they do not include important values such as the C:N values which determine mineralization or immobilization of nitrogen. A more advanced technique is utilizing the *Oregon State University Extension Calculator* which can be found here: https://extension.oregonstate.edu/organic-fertilizer-cover-crop-calculators

Below are a number of calculation conversions to determine how much compost to purchase based on the farm area and the desired amount on the soil:

___ m^2 x ___ cm of compost x 0.01= __ m^3 of compost x 1.3 = __ yd^3 of compost

___ ft^2 x ___ inches of compost x 0.0031 = ___ yd^3 of compost

___ m^2 x ___ inches of compost x 0.034 = ___ yd^3 of compost

___ acre x ___ inches of compost x 135.04 = ___ yd^3 of compost

___ hectare x ___ inches of compost x 340 = ___ yd^3 of compost

Another option to consider is the *Environmental Farm Plan*. Part of their services includes complimentary nutrient management plans. Refer to the following link for more information: https://iafbc.ca/environmental-farm-plan/

What are the consequences of mismanaging compost applications and how do I avoid doing so?

Overapplication and improper timing of nitrogen and phosphorus can lead to nutrient loss through run-off which results in water pollution and poor water quality.

It is a common practice to over apply compost to ensure adequate nitrogen for crops. This is evident in the concerningly high rates of nitrates in the Fraser Valley's groundwater. Because plant-available forms of nitrogen (nitrates and ammonium) are water soluble, they can potentially leach down into ground water systems and contaminate them. Additionally, nitrogen overapplication can favor nitrogen loving weeds which can increase weed pressure.

Accordingly, if compost is the primary nutrient source relied on to meet the crops' N needs, farmers might overapply other nutrients to the soil, especially P and K. There has been heavy P accumulation in the soils of many farms in BC, especially when farmers use manure or manure-based composts. This is due to the N/P ratios in applications. Plants require more nitrogen compared to phosphorus, yet manure contains high amounts of phosphorus. Therefore, when manure-based compost is applied to meet nitrogen demands, phosphorus overapplication occurs. This is becoming a major problem in British Columbia as much of this overapplied phosphorus can end up in our waterways and cause eutrophication (algal growths). These algal growths use up the oxygen in the water, killing other organisms (such as salmon) and blocking waterways.

Since compost should be applied in late spring or early summer, mineralization is likely to continue to release plant-available nitrogen and phosphorus even after the crop has matured and no longer requires nutrients. Since mineralization rates are hard to predict and control, it is recommended that cover crops are planted as soon as possible after harvest to absorb the excess nitrogen. The following season, these cover crops can be incorporated into the soil, recycling and conserving last year's nutrients.

Another nutrient management strategy is to add nitrogen with minimum phosphorus levels to the soil. This can be done by incorporating legumes as an extra nitrogen source into the system, either as cover crops or cash crops. Additionally, plan crop rotations on your farm that rotate between heavy nitrogen feeders (i.e., brassicas) and lower nitrogen feeders (i.e., root crops or legumes). Lastly, if nitrogen demands are still not being met, additional N sources—such as blood meal, fishmeal, or feather meal—can be combined with compost application. They can contain up to 10 times more nitrogen than composts. However, the $/kg of nitrogen for these products can be prohibitive.

A note on spent mushroom substrate

Spent mushroom substrate, sometimes called 'mushroom compost' or 'mushroom manure', is a by-product of the mushroom industry. The larger mushroom growers in the valley mix their own growing substrate for mushroom production. This growing substrate is typically a mix of wheat straw, poultry manure, and gypsum. Once the substrate has been used to grow mushrooms, it is considered 'spent'. Some of this spent mushroom substrate is sold as a soil amendment/compost or included in soil mixes. The main concern with this product is the high salt content/EC (see Glossary). Because of this, it should

be used at moderate rates. Alternatively, it can be "aged" outdoors to allow for salts to leach out (however, this may also lead to salinization issues and loss of nutrients).

We contacted a few spent mushroom substrate suppliers, but none were able to provide nutrient analyses. However, A. Bisset, a student at KPU, provides data in their 2021 student research report for spent mushroom substrate from Highline Mushrooms (Langley) that may be used as an approximate guide. Bisset provides E.C. for one batch of "aged" spent mushroom substrate: 5.4 mS/cm, and three different batches of spent mushroom substrate that were not aged: 7.3 mS/cm, 11.4 mS/cm, and 12.9 mS/cm. We suggest that mushroom manure is a safe and useful source of plant nutrients and organic matter as long as care is taken to minimize salt damage. Application rates of 1 to 2 cm depth incorporated into the soil should be safe for most crops.

Availability and costs

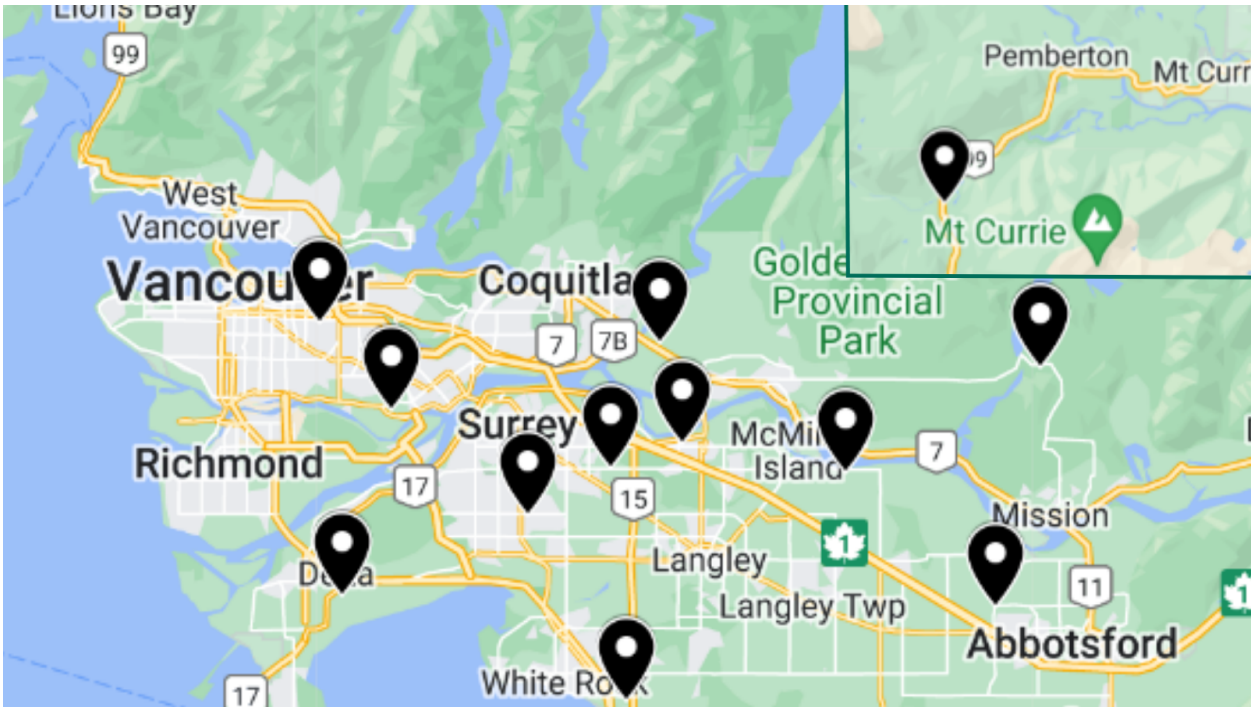
Composts are bulky materials and much of the cost to the end user is related to the expenses of materials handling and transportation, and not to the effectiveness of the compost as a fertilizer or soil builder. Costs increase with distance of trucking from the composting facility and the participation of haulers and retailers. Finally, the cost of bagged materials will usually be significantly greater than bulk deliveries, and the added cost is difficult to justify for farm use.

Composts for farm use in the Lower Mainland

Over the course of early 2023, we contacted the companies in the Lower Mainland still in operation from our 2019 survey and several additional composting facilities. Information on the nutritional content of the various composts (Table 1), and purchase and delivery details (Table 2) is presented in the tables below. Please refer to the glossary below for a brief explanation of any unfamiliar terms.

The information below is current as of March 2023 but is subject to change over time. Note that we were unable to get comprehensive information on compost contaminants. We would appreciate farmer observations as to the presence of visible contaminants, such as plastics, glass, and metal objects. Any suggestions for improving this survey would be greatly appreciated and can be sent to ecosystemservices@spec.bc.ca.

Map of Compost Suppliers



[Compost Supplier Location]

Additional information

Guidelines for Compost Quality:
https://ccme.ca/en/res/compostgdlns_1340_e.pdf

Soil Fertility in Organic Systems: A Guide for Gardeners and Small Acreage Farmers:
https://s3.wp.wsu.edu/uploads/sites/2073/2014/09/20191024_Cultivating-Success-Viva-Farms.pdf

Compost Use and Soil Fertility:
https://ag.umass.edu/vegetable/fact-sheets/compost-use-soil-fertility

Glossary

Table 1 – Nutritional Analysis (in alphabetical order)

C:N: is a good indicator for estimating N release. A rule of thumb is that a compost should have a C:N ratio of less than 20:1 for N to be available to plants. The higher the ratio, the less available nitrogen. Composts with C:N ratio higher than 30:1 can reduce plant available N after their application, which is not beneficial if short-term N release is required for your crops. Composts that release nutrients slowly can be beneficial for increasing soil organic matter and improving the long-term sustainability of a farm's nutrient and water management practices.

P_2O_5: The compost P% values have been converted to the oxide form, P_2O_5, in order to facilitate comparisons between composts and commercial fertilizers, which express their P content in the oxide form (compound containing oxygen). About 50% of this phosphorus in composts will become plant-available in the first year. Although P can be a useful fertilizer constituent of composts, many soils in south coastal BC already have high to excessive available P levels. Adding more P risks environmental pollution and imbalances with other nutrients.

N:P_2O_5: One should consider soil levels of available P and the N: P_2O_5 ratio when comparing composts. When composts are applied to meet nitrogen demands of crops; the N to P ratio (N:P) in these composts is typically lower than the crop N:P ratio needs, as crops require more nitrogen than phosphorus, resulting in an over-fertilization. This means that if composts are applied to meet nitrogen demands, phosphorus is overapplied. A higher ratio of N:P in the compost will result in a more balanced phosphorus application rate. This should be considered when comparing previous farm soil tests as phosphorus levels are often quite high already, in which case, it is suggested to select a higher N:P ratio compost. Additionally, supplementing compost with pure nitrogen fertilization or using cover crops or crop rotations with inoculated legume species to boost nitrogen in the soil so less of the compost needs to be applied, as nitrogen is needed in the largest quantity of the nutrients.

Ca%: Calcium (Ca) is important for cell nutrition, stress response, and nutrient uptake, but is usually supplied during the process of liming to reduce soil acidity.

Est E.C.: Estimated Electrical Conductivity (EC) is a measure of the total salt content of the compost. If too low, it means that the compost may be lacking in nutrients, and if too high (>3 to 4 mS/cm), the compost may be harmful if in direct contact with seeds and seedlings.

K_2O: Potassium oxide, the oxide form of potassium (K). We've converted K to K_2O to match the way this nutrient is reported in commercial fertilizers. Potassium is important for photosynthesis, lodging and disease resistance, and the transportation of water and nutrients, among other things. Compost K is highly available and nearly equivalent to mineral K fertilizers.

MgO%: Magnesium is important for plant photosynthesis and helps legumes to fix nitrogen. We have expressed magnesium as magnesium oxide (MgO) to match the way this nutrient is reported in commercial fertilizers. Many south coastal BC soils are low in Mg and compost Mg additions are often useful.

Na%: Sodium (Na) is not an essential plant nutrient but can be toxic if present in high quantities. It does not appear to be a problem with local composts.

pH: Is a measure of acidity or alkalinity of the compost, using a scale from 0 to 14. A pH of 7 means the compost is neutral, with numbers below that indicating acidity, and numbers above it indicating alkalinity. Because different plant species thrive at different pH ranges, it is important to be aware that your compost can affect the pH of your soil, depending on the quantity added. Almost all composts are alkaline, in some cases caused by Ca or Mg constituents and, in others, a temporary effect of high levels of ammonium N.

Total N%: Nitrogen (N) is vital for plant cell growth and function, because it is a crucial component of proteins, enzymes, and nucleic acids. Ideal range: 2% or higher. However, given the wide range of OM%, the best indicator of short-term N fertilizer values of compost may be the C:N ratio, which should be < 20 for a N response in the year of application.

Generally speaking, nitrogen release from composts is complicated as it is dependent on a number of factors: C/N ratio, mineralization rates based on materials and % N in the compost (need >2% for mineralization). Its availability will be discussed in the nitrogen calculation section on how much to apply. It is further complicated by the fact that N is released in the first year of application, and during the subsequent years N release continues at lower levels. The release of P is about 50% and K 90% in the first year. Accordingly, composts applied for meeting N needs are generally adding an excessive amount of P to the soil.

Total OM%: Total Organic Matter (OM) content. Refer to **Organic Matter** under **Soil Requirement**. Total OM contents in surveyed composts ranged from approximately 30 to 84%, indicating that the remainder is not organic material. This is not necessarily a problem, but indicates that the compost payload of OM and N may be diminished in composts with low OM%, as compared to composts with high OM%.

Although minimum levels of soil organic matter for successful crop production can vary, it can be generalized that coarse (sandy) textured soils should have 10% or greater organic matter for sustained production. Medium to fine textured soils (clays, silts, loams), such as on the Fraser Delta, become susceptible to poor aeration and ponding when soil organic matter levels drop to 2- 3%.

Table 2 – Purchase and Delivery Details (in order of appearance)

Feedstock: the main ingredients of the compost recipe.

OMRI listed: a product is included in the Organic Materials Review Institute (OMRI) list once it has passed an OMRI expert review and has been approved for use as an input in organic production. Local composts do not have to be OMRI approved to be acceptable inputs for organic farms.

Price: the pick-up price of the product, whether bulked or bagged.

Delivery Price: the cost to get your compost delivered.

Minimum purchase: the minimum volume of compost that the company delivers.

Split drops: whether or not the company will split the purchased volume, delivering part of the compost to one place, and part of it to another.

Type of truck: the type of truck used to make deliveries.

Delivery radius: where/how far companies deliver compost.

Table 1: Nutritional Analysis. Summary of the nutritional content of the compost products surveyed. Companies that did not provide a nutritional analysis were not included in the table. Refer to the Glossary below for a brief description of terms.

Company	Product	pH	Est. E.C. (mS/cm)	Total OM%	C:N	N:P_2O_5	Total N%	P_2O_5%	K_2O%	Ca%	MgO%	Na%
Baird Cattle Co.	Steer manure	9.0	5.40	76.8	39.6	5.2	0.97	0.19	1.03	0.22	0.11	0.24
Mission Landfill	Screened finished compost	n/a	n/a	67.7	17.2	n/a	1.97	n/a	n/a	n/a	n/a	n/a
Premium Soils	Plant-based compost	7.5	7.0	64.3	11.8	25	2.72	0.11	0.74	0.72	0.09	0.38
Ridge Valley Farms	Organic compost manures blend	8.23	5.30	29.5	13	1.7	1.24	0.72	1.14	2.26	0.40	0.20
Sea to Sky Soils	SSS commercial compost	7.1	5.40	39.3	10.9	21.6	1.94	0.09	0.52	0.45	0.09	0.17
	SSS organic compost	7.5	7.70	41.0	8.4	22.3	2.45	0.11	0.87	0.51	0.13	0.16
Transform Compost Products	Soil conditioner plus	7.3	11.25	72.3	19	7.8	2.59	0.33	0.73	0.27	0.16	1.14

Table 2: Purchase and Delivery Details. Summary of important information regarding the purchase and delivery of compost for all the companies surveyed. Refer to the glossary on page 9 for a description of any unfamiliar terms.

Company	Contact Information/Address	Products and Feedstock	OMRI Listed	Class	Price	Delivery	Provided nutrient analysis
Baird Cattle Co.	Phone 604-946-6687 Email bairdcattle@gmail.com Address 17256 8th Ave, Surrey, BC, V3Z 9R5 www.bairdcattle.com	Product: Aged Steer Manure Feedstock: Steer manure with sawdust bedding	No	-	$20/yd 1 yd min.	Price: Quoted by location and volume Split Drop: No	Yes
City of Vancouver	Phone 604-606-2700 Address 5400 72nd St, Delta, BC, V4K,3N3 https://vancouver.ca/home-property-development/compost-soil.aspx	Product: Compost/Soil Amender Feedstock: Green waste, yard clippings	No	Class A	$8/$m^3$ $5 min. charge	Does not deliver	No
GFL Delta Organics	Phone 604-946-0201	Product: Amended Bark Compost and Municipal Compost Feedstock: Food waste, green waste, yard clippings, tree pruning/wood waste, horse manure	No	-	1-4 yds = $37.78/yd 5-7 yds = $28.38/yd >8 yds = $19.84/yd	Price: Quoted by location and volume Minimum Purchase: 10 yards, up to 40 Split Drop: Yes. Can deliver more than one product	No

Hopcott Farms	Phone 604-465-5000 Email brad@hopcottfarms.ca Address 18385 Old Dewdney Trunk Road, Pitt Meadows, BC V3Y 2R9	Product: Aged Steer Manure Feedstock: Steer manure, hemlock sawdust bedding	No	-	$30/yd 2 yd min.	Price: Quoted by location and volume. Usually within 25 miles of the farm.	No
Mission Landfill	Phone 604-785-8518 Address 32000 Dewdney Trunk Rd, Mission, BC V4S 1L7	Products: Finished Screened Compost Feedstock: Household waste and woodchips	No	Class A	$10/yd + $20 loading fee	Price: Quoted by location and volume. Depends on truck availability and customer. Generally within 15km = $100-150	Yes
Premium Soils Ltd.	Phone 604-541-7645 Email info@premiumsoils.ca	Products: Plant-based Compost, Mushroom Manure, Amender Mix. Feedstock: Food waste, green waste, yard clippings, tree pruning/deciduous wood waste, poultry manure and bedding, mushroom compost, dairy manure.	No	-	Ask for individual product pricing. 1 yd min.	Price: Quoted by location and volume Split Drop: Yes	Yes

Ridge Valley Farms	Phone 604 307-7527 Email sales@rvf-ltd.ca Address 30974 North Burgess Avenue, Abbotsford BC, V4X 2A6 https://rvf-ltd.ca/	Products: Organic Compost, Organic Compost Steer/ Dairy Manure, Organic Compost Mushroom Manure, Organic Compost Manure Blend. Feedstock: Green waste, steer manure, cattle manure and bedding, poultry manure and bedding, mushroom compost, blended organic manures.	Yes	Class A	Minimum order 28T (~70 yds). Contact for pricing OMRI blended organic compost product available in bulk supply for smaller loading by yd. at retail dealers: - West Coast Floral Nursery, Surrey - Landscape Centre, United Blvd, Coquitlam - Creative Brick Block, North Vancouver	Price: Quoted by location and volume. Professional delivery supplied for commercial supply only. Delivery Radius: Available for delivery in the lower mainland, Vancouver Island, Okanagan, throughout Alberta and Washington State. Split Drop: Yes, but only if both locations are on the same property.	Yes
Sea to Sky Soils	Phone 604 907-3478 Address S Rutherford Creek Rd, Whistler, BC V0N 2K0 https://www.seatoskysoils.com/products/organic-compost	Products: Organic and commercial composts available. Specialty/custom compost can be provided. Feedstock: Green waste, yard clippings. In the commercial compost blend there is food waste, some biosolids.	Organic Compost: Yes	Class A	Bulk price for organic compost approx. $20/yd. Non-organic certified commercial grade is less expensive.	Buyer organizes trucking, or Sea to Sky will organize. Price: *approximate* Semi tractor trailer ($150/hr). $3/yd. for 1hr transport. Dump truck $165/hr (14 yds). Delivery available to wherever if willing to pay transport. Split Drop: No	Yes

Transform Compost Products	Phone 604-302-4367 Email transform@telus.net Address Abbotsford, BC V4X 3R2	Products: Soil Conditioner, Worm Castings Feedstock: Soil Conditioner: Poultry litter, cow manure and some wood. Worm Castings: Separated dairy cattle solids.	No. Produced according to Canadian Organic Production Systems Standards. Can provide documents	Class A	Soil conditioner: $45 per yd, minimum 1 yd. Also available in 1L and 2L bags. Worm castings: $250/yd in 1 yd bulk bag or $10 for 20 L	Does not deliver	Yes
Triple Five Quality Wood Products	Phone 778-867-2275 Address 12716 King George Blvd. Surrey, BC V3V 3K5	Products: Mushroom Manure, Compost Amender Feedstock: Mushroom Manure: Wheat straw, poultry manure, gypsum. Compost Amender: 90% bark mulch, 10% steer manure.	No	-	Compost: 1 yd $45.00 1/2 yd $25.00 Bag (5 gal.) $ 7.00 Mushroom Manure: 1 yd $45.00 1/2 yd $25.00 Bag (5 gal.) $ 7.00	Price: 10yds plus delivery = $570 Delivery Radius: Surrey, Langley, Cloverdale, Abbotsford, Aldergrove, Maple Ridge, Pitt Meadows, Coquitlam, Port Coquitlam, Port Moody, New Westminster, Burnaby, Delta, Richmond, Vancouver, North Vancouver, West Vancouver and all Lower Mainland. Split Drop: Yes	No