Map – SRBT Produce Sampling 2024

632 Johnston Crescent

611 Moss Drive

1232 Pembroke Street East

SRBT Facility
SRBT

171 Sawmill Road
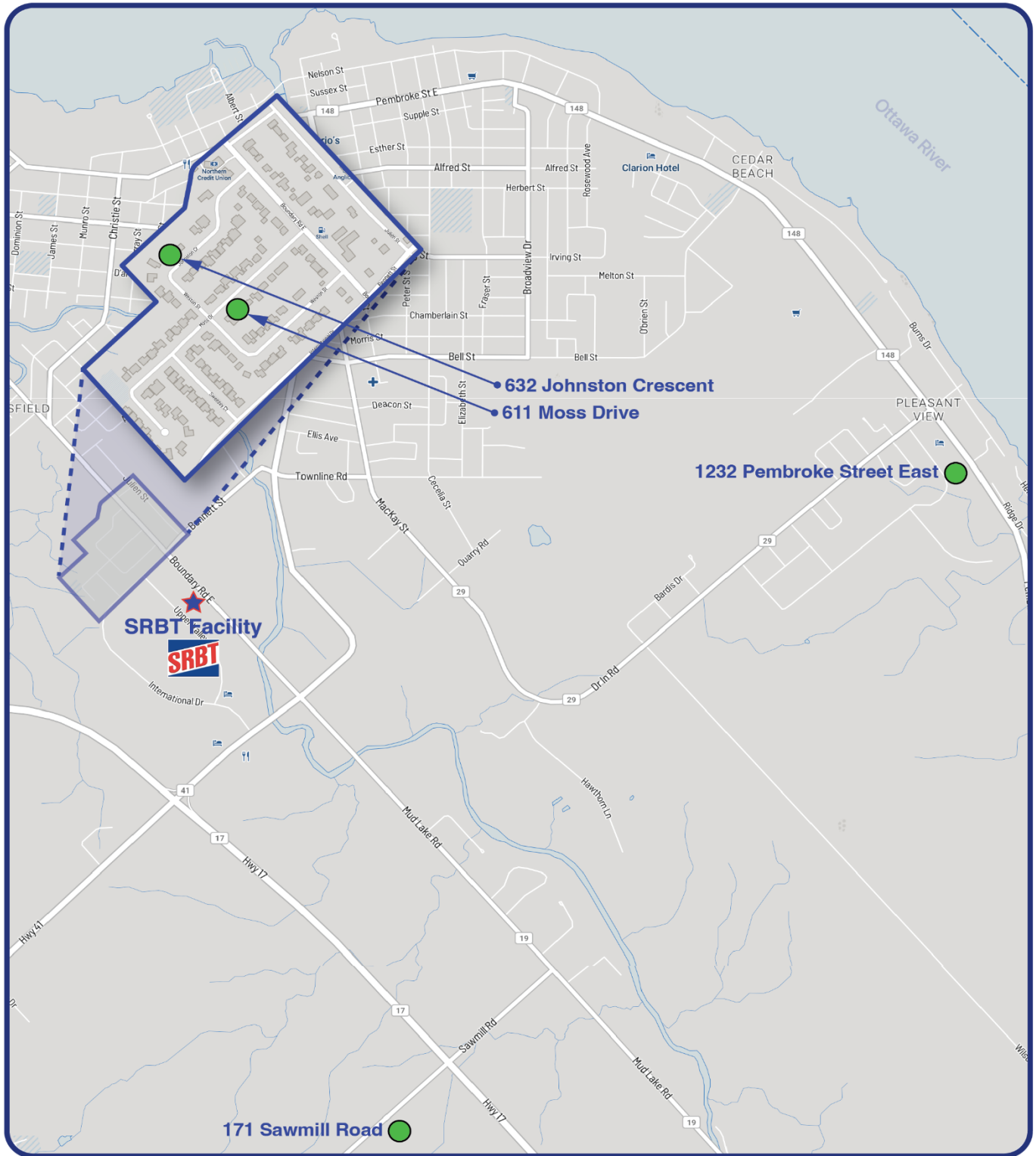
Produce Sample Points

2024 Residential Produce Sampling – Free-water Tritium Concentration

Sample	Units	Result
Cucumber 611 Moss Drive	Bq/kg Fresh weight	171
Tomatoes 611 Moss Drive	Bq/kg Fresh weight	189
Carrots 611 Moss Drive	Bq/kg Fresh weight	113
Beans 171 Sawmill Road	Bq/kg Fresh weight	34
Tomatoes 171 Sawmill Road	Bq/kg Fresh weight	12
Cucumber 171 Sawmill Road	Bq/kg Fresh weight	15
Carrots 171 Sawmill Road	Bq/kg Fresh weight	12
Rhubarb 632 Johnston Crescent	Bq/kg Fresh weight	80

2024 Residential Produce Sampling – Organically-bound Tritium (OBT) Concentration

Sample	Units	Result
Tomatoes 611 Moss Drive	OBT Bq/kg Fresh weight	6
Cucumber 611 Moss Drive	OBT Bq/kg Fresh weight	4
Tomatoes 171 Sawmill Road	OBT Bq/kg Fresh weight	0.2
Cucumber 171 Sawmill Road	OBT Bq/kg Fresh weight	0.2

2024 Commercial Produce Sampling – Free-water Tritium Concentration

Sample	Units	Result
Rhubarb - Pembroke 1232 Pembroke St. E	Bq/kg Fresh weight	2

2024 Commercial Produce Sampling – Organically-bound Tritium (OBT) Concentration

Sample	Units	Result
Rhubarb - Pembroke 1232 Pembroke St. E	OBT Bq/kg Fresh weight	0.8

Produce Sampling Data Trends

2020-2024

NOTES:

Data on free-water tritium concentration in sampled produce over the last five years is presented below for all sample locations.

As an example, a theoretical effective dose to a person due to produce consumption can be calculated based on the following assumptions:

- 100% of the produce consumed by a person contains a concentration of 300 Bq of free-water tritium per kilogram of produce.
- The person consumes the 95th percentile value of produce over the course of the year (as per CSA standard N288.1).

Given these assumptions, the calculated effective doses to members of the public are as follows:
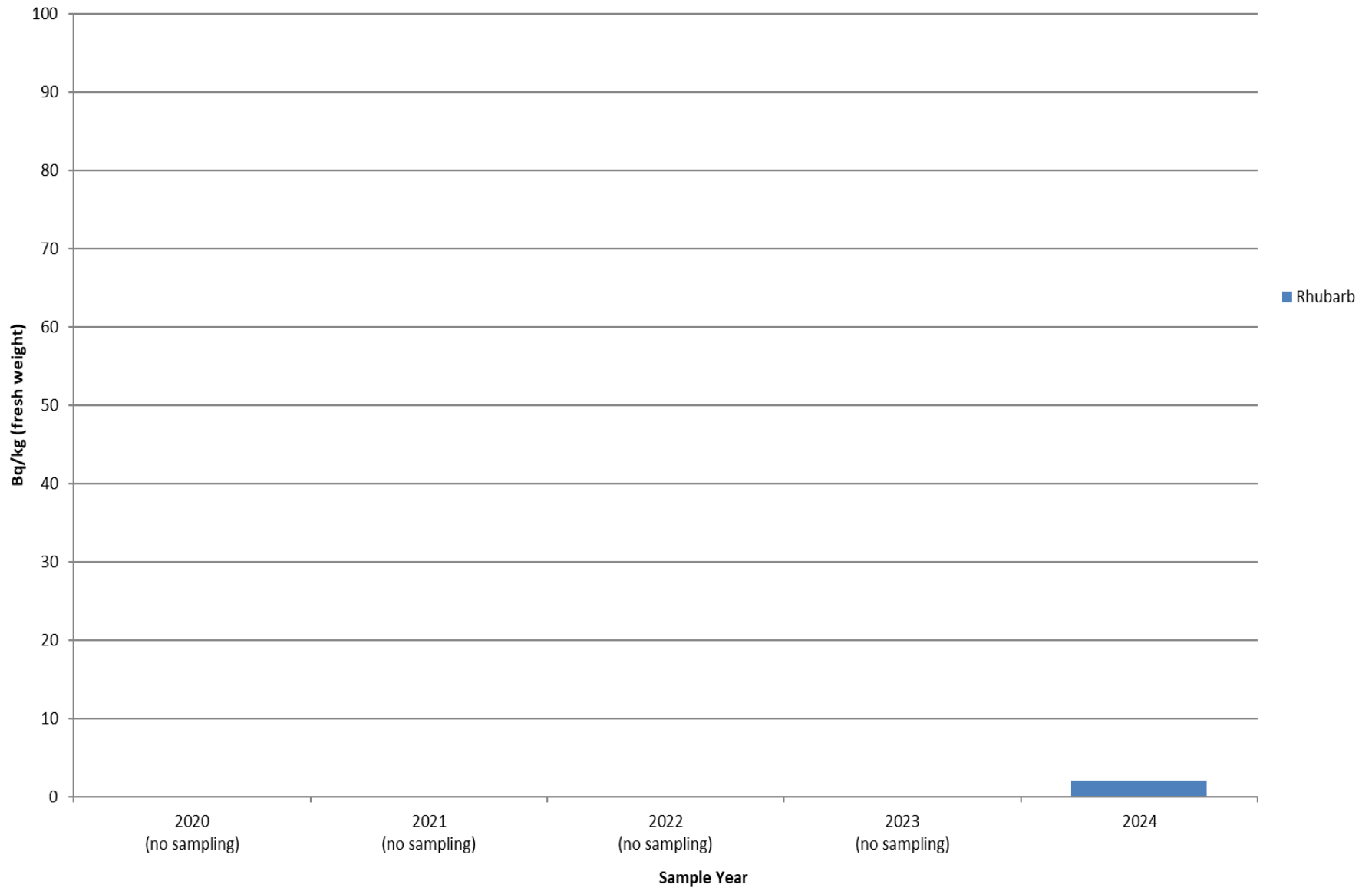
- For an adult → 0.0025 mSv per year
- For a 10-year old child → 0.0020 mSv per year
- For a 1-year old infant → 0.0020 mSv per year

In comparison, the limit for effective dose to a member of the public is 1.000 mSv per year, as per Section 13 of the *Radiation Protection Regulations.*
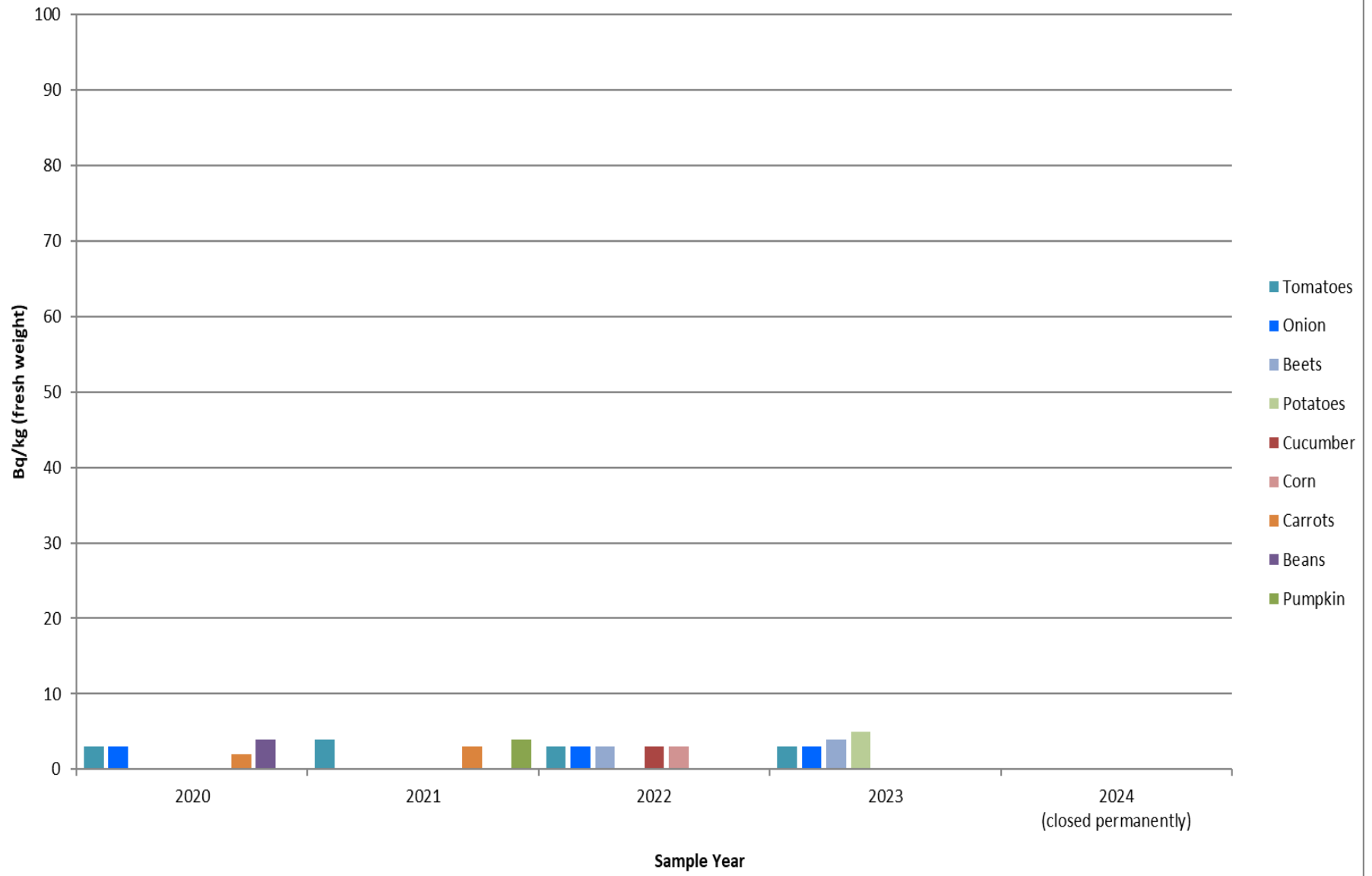
The calculated effective doses for produce consumption based on these assumptions would be well below 0.5% of the regulatory limit.

When all sources of exposure are considered (including produce consumption), the effective doses to members of the public are well below the regulatory limit, and represent an extremely low level of risk. For more information, please consult SRBT's Annual Compliance Report at www.srbt.com.
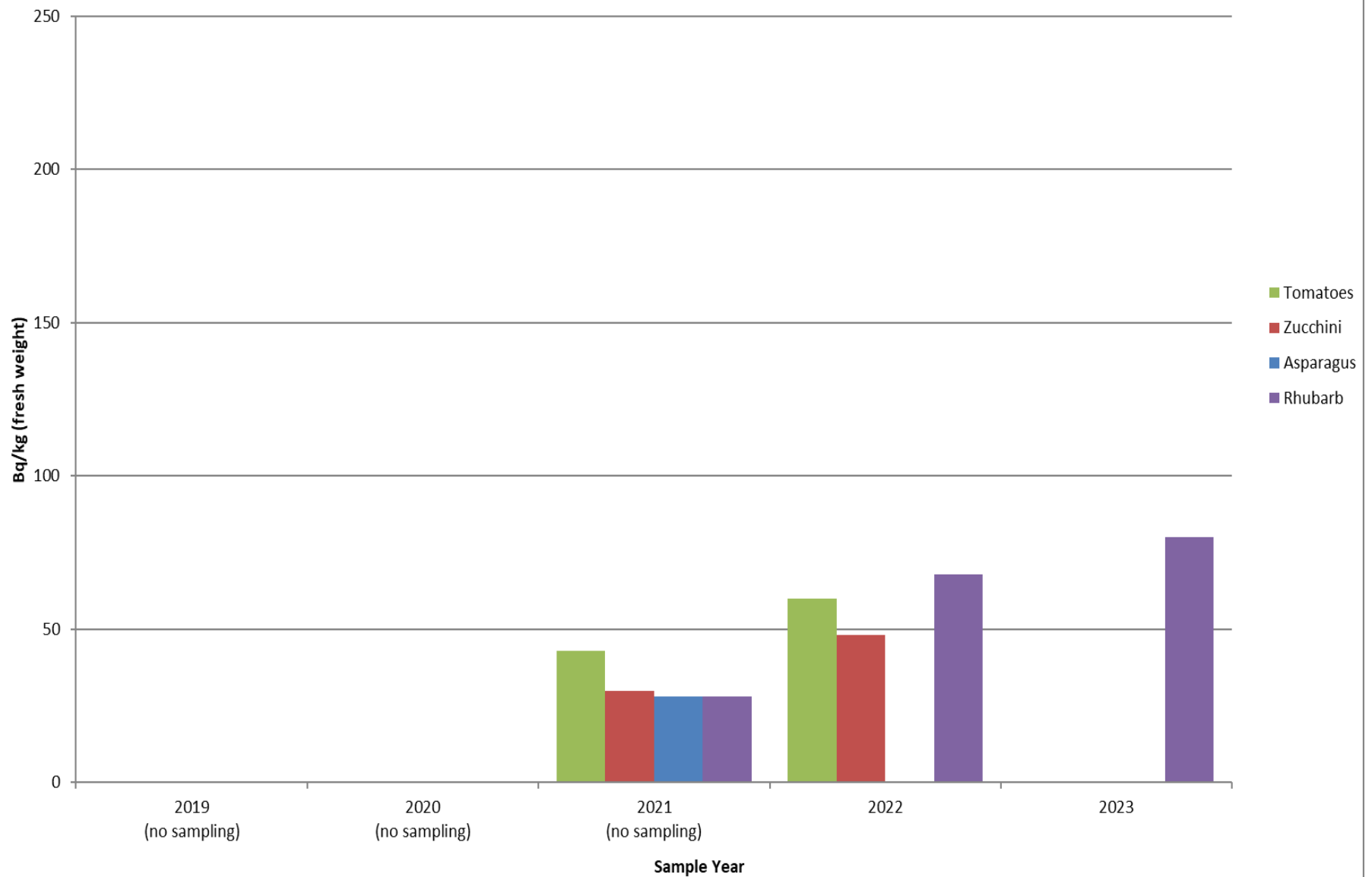
Produce Monitoring - 1232 Pembroke St. East
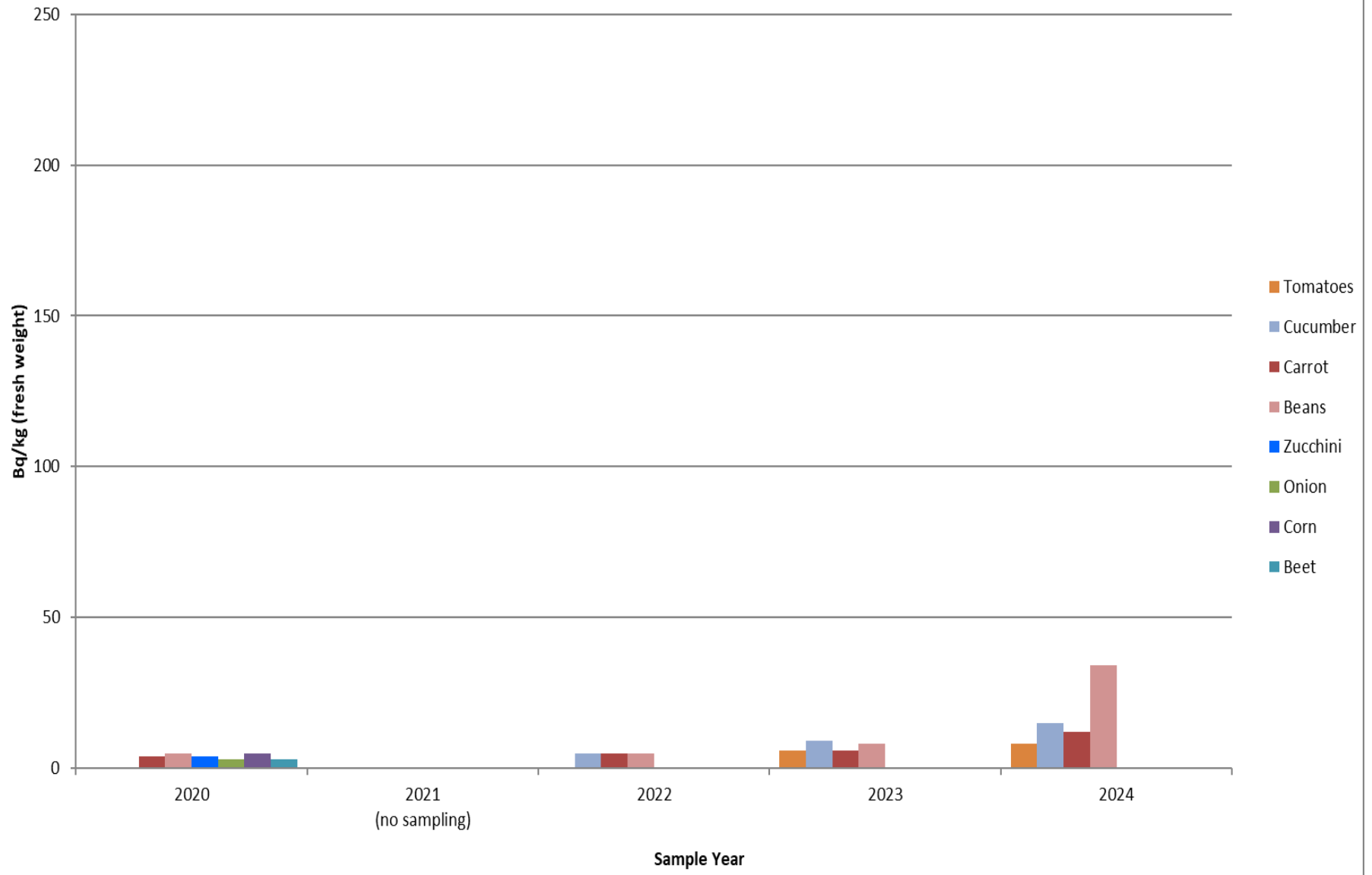## (Scale: 0 - 100 Bq/kg fresh weight)

■ Rhubarb

Bq/kg (fresh weight)

Sample Year

2020
(no sampling)

2021
(no sampling)

2022
(no sampling)

2023
(no sampling)

2024

Produce Monitoring - 11333 Round Lake Road
(Scale: 0 - 100 Bq/kg fresh weight)

Legend:
- Tomatoes
- Onion
- Beets
- Potatoes
- Cucumber
- Corn
- Carrots
- Beans
- Pumpkin

Y-axis: Bq/kg (fresh weight), scale 0 to 100

X-axis: Sample Year — 2020, 2021, 2022, 2023, 2024 (closed permanently)

Produce Monitoring - 632 Johnston Crescent
(Scale: 0 - 250 Bq/kg fresh weight)

Bq/kg (fresh weight)

- Tomatoes
- Zucchini
- Asparagus
- Rhubarb

2019 (no sampling) 2020 (no sampling) 2021 (no sampling) 2022 2023

Sample Year

Produce Monitoring - 171 Sawmill Road
(Scale: 0 - 250 Bq/kg fresh weight)

Bq/kg (fresh weight)

Sample Year

2020   2021 (no sampling)   2022   2023   2024

Legend:
- Tomatoes
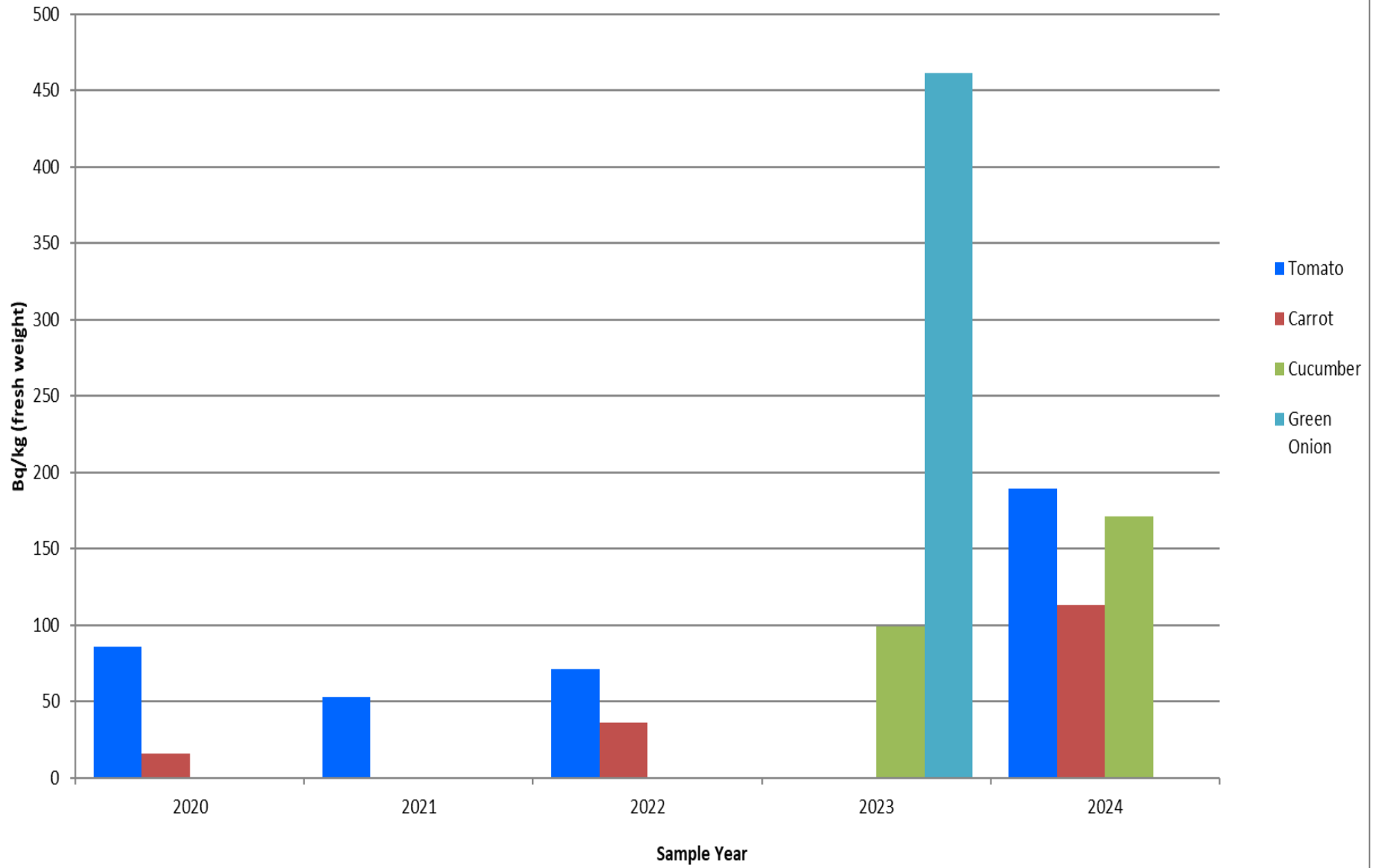- Cucumber
- Carrot
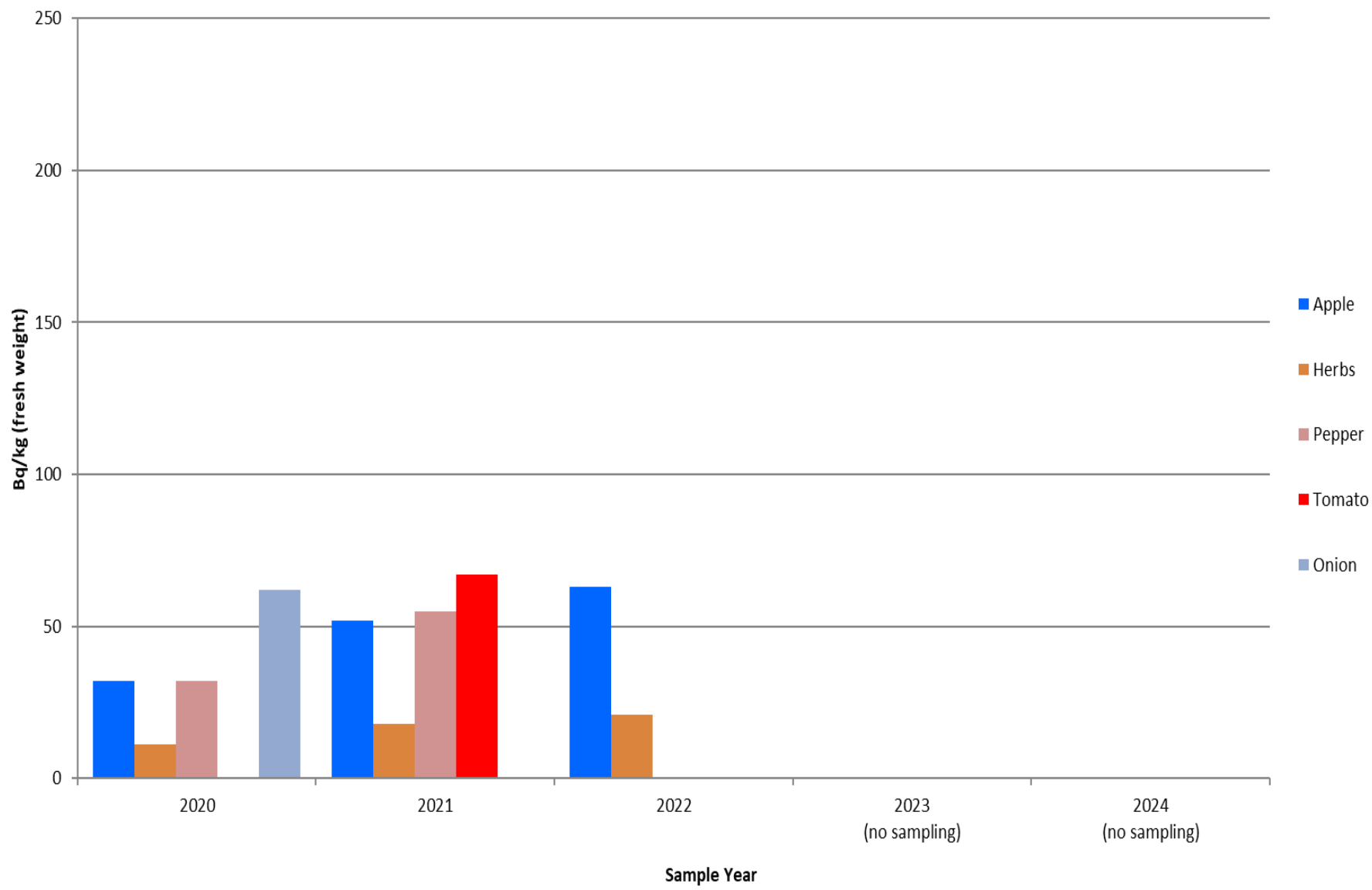- Beans
- Zucchini
- Onion
- Corn
- Beet

Produce Monitoring - 611 Moss Drive
(Scale: 0 - 500 Bq/kg fresh weight)

Produce Monitoring - 413 Sweezy Court
(Scale: 0 - 250 Bq/kg fresh weight)

Produce Monitoring - 408 Boundary Road
(Scale: 0 - 250 Bq/kg fresh weight)