In this study we investigated the effect of nitrogen (N) fertilization on the metabolites of blueberry flowers produced in pollen. As honeybees feed on pollen and nectar, understanding whether N fertilization affects metabolite content is of relevance for their nutrition.

Five classes of metabolites were included in the data: carbohydrates, amino acids, metabolites of shikimate pathway and triboxylic acid cycle (TCA), and vitamins and antioxidants (categorized as others).

Nitrogen fertilization in soil greatly affects metabolite content in pollen. In particular, we observed the following trends:

- Sugars are more abundant in the treatment with high N
- Intermediates of TCA are present in both high and low treatments, but not medium
- Amino acids are highly abundant in the low treatment

The data shows that with a change in concentration of N fertilization there is a variation in metabolite expression.

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Experimental data collected at Washington State University