-- Fetch the commodity results collect from each country

SELECT DISTINCT

`Country Name` AS Country\_Name,

COUNTRY AS Country\_Code,

`Commodity Name` AS Commodity

FROM

pdp\_samples

LEFT JOIN

country\_code ON pdp\_samples.COUNTRY = country\_code.`Country Code`

JOIN

pdp\_results ON pdp\_samples.SAMPLE\_PK = pdp\_results.SAMPLE\_PK

JOIN

commodity\_code ON pdp\_results.COMMOD = commodity\_code.`Commodity Code`

ORDER BY Country\_Code;

-- Fetch the distint countries from which test results was gotten

SELECT DISTINCT

`Country Name` AS Country\_Name

FROM

pdp\_samples

JOIN

country\_code ON pdp\_samples.COUNTRY = country\_code.`Country Code`

JOIN

pdp\_results ON pdp\_samples.SAMPLE\_PK = pdp\_results.SAMPLE\_PK;

-- Fetch the commodity results collect from each country

SELECT DISTINCT

`Country Name` AS Country\_Name,

COUNTRY AS Country\_Code,

`Commodity Name` AS Commodity

FROM

pdp\_samples

LEFT JOIN

country\_code ON pdp\_samples.COUNTRY = country\_code.`Country Code`

JOIN

pdp\_results ON pdp\_samples.SAMPLE\_PK = pdp\_results.SAMPLE\_PK

JOIN

commodity\_code ON pdp\_results.COMMOD = commodity\_code.`Commodity Code`

ORDER BY Country\_Code;

SELECT

`Country Name` AS Country\_Name,

COUNT(COUNTRY) AS Number\_of\_Results

FROM

pdp\_samples

JOIN

country\_code ON pdp\_samples.COUNTRY = country\_code.`Country Code`

JOIN

pdp\_results ON pdp\_samples.SAMPLE\_PK = pdp\_results.SAMPLE\_PK

GROUP BY `Country Name`

ORDER BY Number\_of\_Results DESC;

-- Commodities with test results

SELECT DISTINCT

`COMMODITY NAME`, COUNT(\*) AS Samples

FROM

pdp\_results

LEFT JOIN

commodity\_code ON commodity\_code.`Commodity Code` = pdp\_results.COMMOD

GROUP BY `COMMODITY NAME`

ORDER BY Samples DESC;

-- Fetch the top 10 samples with the highest Limit of Detection (LOD)

SELECT DISTINCT

R.SAMPLE\_PK, C.`Commodity Name`, R.LOD AS LOD

FROM

pdp\_results R

LEFT JOIN

commodity\_code C ON R.COMMOD = C.`Commodity Code`

ORDER BY LOD DESC;

-- Which pesticide has the highest highest Limit of Detection (LOD) per commodity

SELECT DISTINCT

C.`Commodity Name`, P.`Pesticide Name`, T.LOD

FROM

pdp\_results T

LEFT JOIN

commodity\_code C ON T.COMMOD = C.`Commodity Code`

JOIN

pest\_code P ON T.PESTCODE = P.`Pest Code`

ORDER BY C.`Commodity Name` ASC , T.LOD DESC;

-- Fetch the average Limit of Detection (LOD) per pesticide per commodity

SELECT

C.`Commodity Name`,

P.`Pesticide Name`,

ROUND(AVG(T.LOD), 4) AS Average\_LOD

FROM

pdp\_results T

LEFT JOIN

commodity\_code C ON T.COMMOD = C.`Commodity Code`

JOIN

pest\_code P ON T.PESTCODE = P.`Pest Code`

GROUP BY C.`Commodity Name` , P.`Pesticide Name`

ORDER BY C.`Commodity Name` , Average\_LOD DESC;

-- Fetch the maximum Limit of Detection (LOD) per pesticide per commodity

SELECT

C.`Commodity Name`,

P.`Pesticide Name`,

ROUND(MAX(T.LOD), 4) AS Maximum\_LOD

FROM

pdp\_results T

LEFT JOIN

commodity\_code C ON T.COMMOD = C.`Commodity Code`

JOIN

pest\_code P ON T.PESTCODE = P.`Pest Code`

GROUP BY C.`Commodity Name` , P.`Pesticide Name`

ORDER BY C.`Commodity Name` , Maximum\_LOD DESC;

-- Fetch test that detected pesticide residue

SELECT

MEAN, SAMPLE\_PK

FROM

pdp\_results

WHERE

MEAN NOT IN ('ND' , 'NP')

;

-- Fetch test that detected pesticide residue for each commodity

SELECT

C.`Commodity Name`, COUNT(SAMPLE\_PK) AS Number\_of\_Detection

FROM

pdp\_results T

JOIN

commodity\_code C ON T.COMMOD = C.`Commodity Code`

WHERE

MEAN NOT IN ('ND' , 'NP')

GROUP BY C.`Commodity Name`

ORDER BY 2

;

-- Calculate percentage of the results that detected pesticide residue per commodity

WITH detect as (

SELECT C.`Commodity Name`, count(SAMPLE\_PK) as Number\_of\_Detection

FROM

pdp\_results T JOIN commodity\_code C ON T.COMMOD = C.`Commodity Code`

WHERE MEAN NOT IN ('ND', 'NP')

GROUP BY C.`Commodity Name`

)

SELECT

d.`Commodity Name`,

f.Total\_Tests,

d.Number\_of\_Detection,

ROUND((d.Number\_of\_Detection / f.Total\_Tests) \*100,2) as Percentage\_Detected

FROM

detect d JOIN (SELECT C.`Commodity Name`,

count(SAMPLE\_PK) as Total\_Tests

FROM

pdp\_results T JOIN commodity\_code C ON T.COMMOD = C.`Commodity Code`

GROUP BY C.`Commodity Name`) as f

ON f.`Commodity Name` = d.`Commodity Name`

ORDER BY Percentage\_Detected DESC;

-- Fetch the distint Labs from which test results was gotten

SELECT DISTINCT

`Lab Agency Name` AS Lab\_Name, `Lab City/State` AS Location

FROM

pdp\_results T

JOIN

lab\_code L ON T.LAB = L.`Lab Code`;

-- Count of results from each lab from highest to lowest

SELECT DISTINCT

`Lab Agency Name` as lab\_Name,

`Lab City/State` as Location,

`Commodity Name` as Commodity,

COUNT(COMMOD) OVER (PARTITION BY `Lab Code`) as Total\_Per\_Lab,

COUNT(COMMOD) OVER (PARTITION BY COMMOD) as Total\_Per\_Commodity

FROM pdp\_results LEFT JOIN commodity\_code ON pdp\_results.COMMOD = commodity\_code.`Commodity Code`

JOIN lab\_code L on pdp\_results.LAB = L.`Lab Code`

ORDER BY lab\_name, Total\_Per\_Commodity DESC ;