

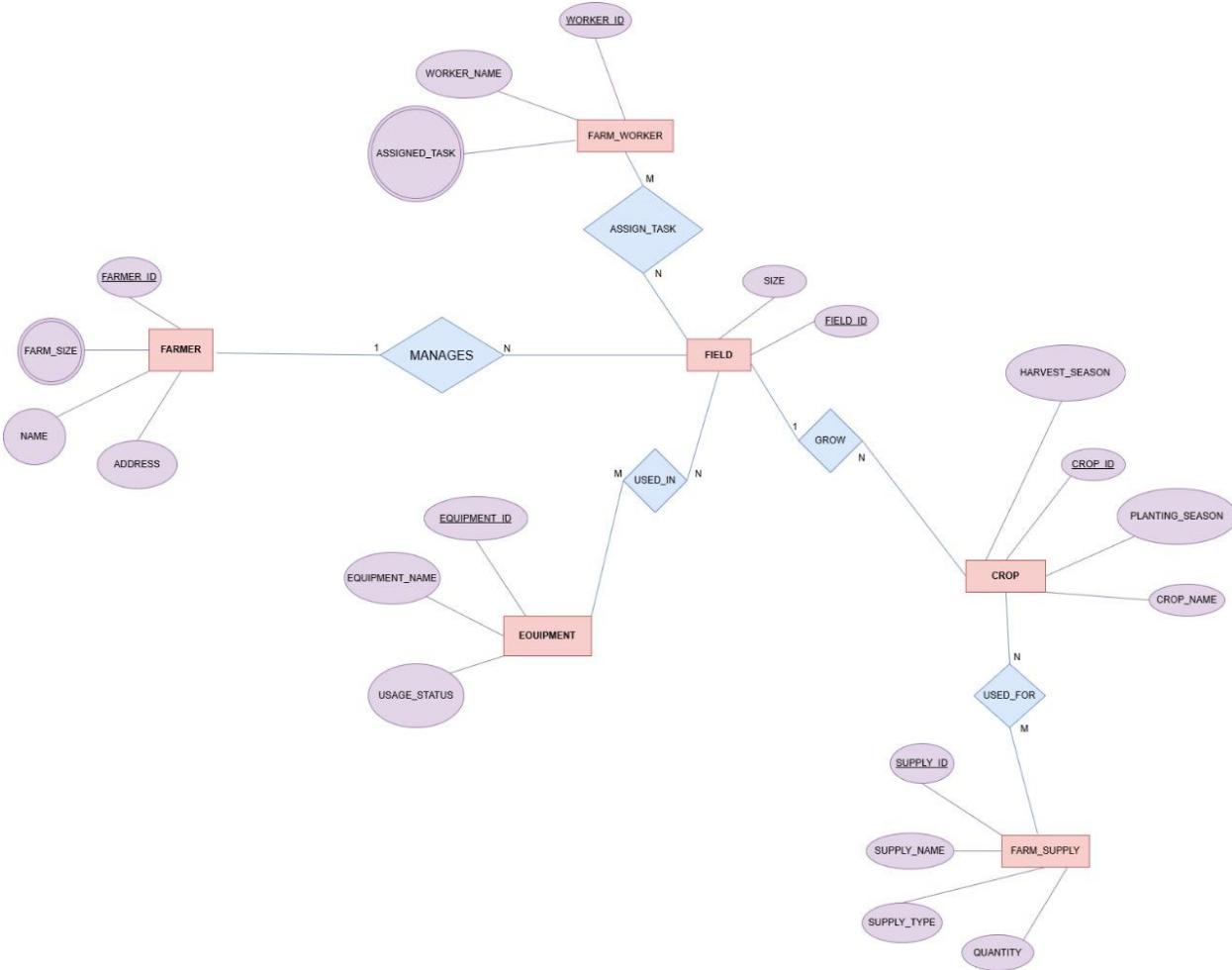


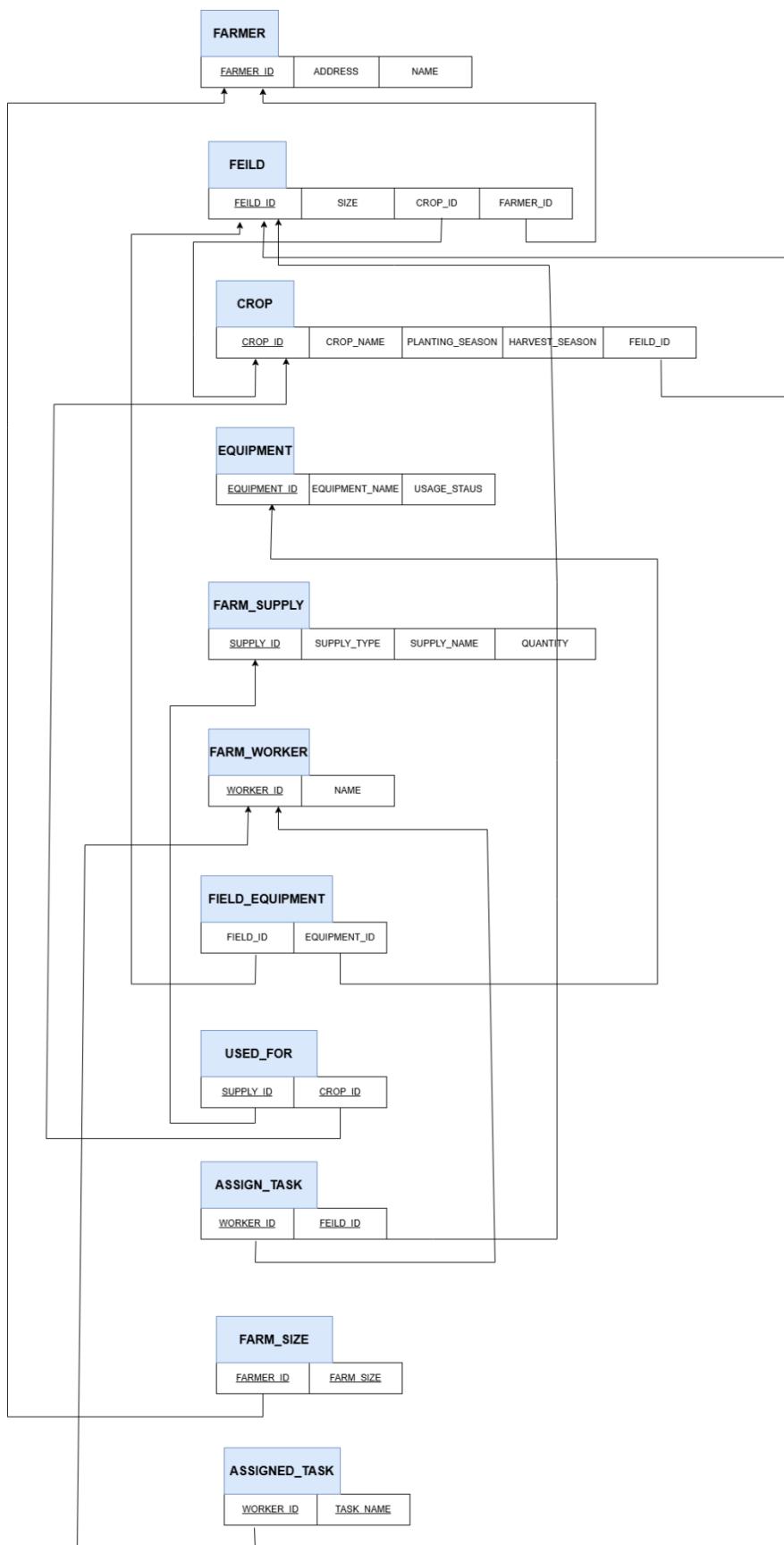
Farm Management

System Database

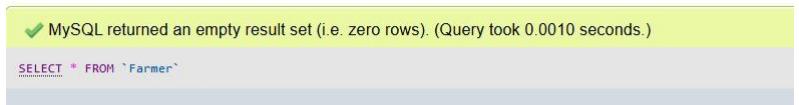
BRIEF:

This DBMS models a farming system with tables for farmers, farm workers, fields, equipment, crops, and supplies. It manages relationships like farm sizes, worker assignments, and equipment usage, ensuring referential integrity with cascading deletions. The system tracks supplies used for specific crops and farm tasks.





```
CREATE TABLE Farmer(  
    Farmer_ID INT PRIMARY KEY,  
    Name VARCHAR(100),  
    Address VARCHAR(255)  
) ;
```

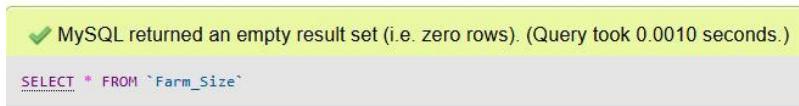


```
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0010 seconds.)  
SELECT * FROM `Farmer`
```

Farmer_ID Name Address

Query results operations
Create view

```
CREATE TABLE Farm_size(  
    Farmer_ID INT,  
    Farm_size FLOAT,  
    PRIMARY KEY (Farmer_ID,Farm_size),  
    FOREIGN KEY (Farmer_ID) REFERENCES  
        Farmer(Farmer_ID) ON DELETE CASCADE  
) ;
```



```
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0010 seconds.)  
SELECT * FROM `Farm_Size`
```

Farmer_ID Farm_Size

Query results operations
Create view

```
CREATE TABLE Field (
    Field_ID INT PRIMARY KEY,
    Size FLOAT,
    Farmer_ID INT,
    FOREIGN KEY (Farmer_ID) REFERENCES Farmer(Farmer_ID) ON DELETE CASCADE
);
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0012 seconds.)

```
SELECT * FROM `Field`
```

Field_ID	Size	Farmer_ID
----------	------	-----------

Query results operations

Create view

```
CREATE TABLE Farm_Worker (
    Worker_ID INT PRIMARY KEY,
    Worker_Name VARCHAR(100)
);
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0012 seconds.)

```
SELECT * FROM `Farm_Worker`
```

Worker_ID	Worker_Name
-----------	-------------

Query results operations

Create view

```
CREATE TABLE Assigned_Task (
    Worker_ID INT,
    Task_Name VARCHAR(255),
    PRIMARY KEY (Worker_ID, Task_Name),
    FOREIGN KEY (Worker_ID) REFERENCES Farm_Worker(Worker_ID) ON
DELETE CASCADE
);
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Assigned_Task`
```

Worker_ID	Task_Name
-----------	-----------

Query results operations

Create view

```

CREATE TABLE Assign_Task (
    Worker_ID INT,
    Field_ID INT,
    PRIMARY KEY (Worker_ID, Field_ID),
    FOREIGN KEY (Worker_ID) REFERENCES Farm_Worker(Worker_ID) ON
DELETE CASCADE,
    FOREIGN KEY (Field_ID) REFERENCES Field(Field_ID) ON DELETE
CASCADE
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Assign_Task`
```

Worker_ID **Field_ID**

Query results operations

Create view

```

CREATE TABLE Equipment (
    Equipment_ID INT PRIMARY KEY,
    Equipment_Name VARCHAR(100),
    Usage_Status VARCHAR(50)
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Equipment`
```

Equipment_ID **Equipment_Name** **Usage_Status**

Query results operations

Create view

```

CREATE TABLE Used_In (
    Equipment_ID INT,
    Field_ID INT,
    PRIMARY KEY (Equipment_ID, Field_ID),
    FOREIGN KEY (Equipment_ID) REFERENCES Equipment(Equipment_ID) ON
    DELETE CASCADE,
    FOREIGN KEY (Field_ID) REFERENCES Field(Field_ID) ON DELETE
    CASCADE
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Used_In`
```

Equipment_ID	Field_ID
--------------	----------



```

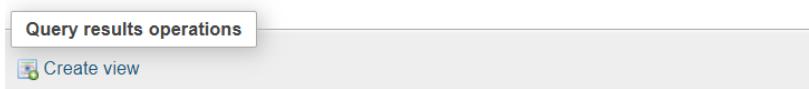
CREATE TABLE Crop (
    Crop_ID INT PRIMARY KEY,
    Crop_Name VARCHAR(100),
    Planting_Season VARCHAR(50),
    Harvest_Season VARCHAR(50) );

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Crop`
```

Crop_ID	Crop_Name	Planting_Season	Harvest_Season
---------	-----------	-----------------	----------------



```

CREATE TABLE Farm_Supply (
    Supply_ID INT PRIMARY KEY,
    Supply_Name VARCHAR(100),
    Supply_Type VARCHAR(50),
    Quantity INT
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Farm_Supply`
```

Supply_ID	Supply_Name	Supply_Type	Quantity
-----------	-------------	-------------	----------

[Query results operations](#)

[Create view](#)

```

CREATE TABLE Used_For (
    Supply_ID INT,
    Crop_ID INT,
    PRIMARY KEY (Supply_ID, Crop_ID),
    FOREIGN KEY (Supply_ID) REFERENCES Farm_Supply(Supply_ID) ON
DELETE CASCADE,
    FOREIGN KEY (Crop_ID) REFERENCES Crop(Crop_ID) ON DELETE CASCADE
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
SELECT * FROM `Used_For`
```

Supply_ID	Crop_ID
-----------	---------

[Query results operations](#)

[Create view](#)

--INSERT DATA

```
INSERT INTO Farmer (Farmer_ID, Name, Address) VALUES
(1, 'Ahmed El-Sayed', 'Abdulsalam Metwali St., Asyut'),
(2, 'Mona Hussein', 'Zaqaziq, Sharqiya'),
(3, 'Karim Saleh', 'Luxor Nile Street, Luxor'),
(4, 'Aisha Mansour', 'Wadi Natroun, Buhayraa'),
(5, 'Hassan Omar', 'Fayoum Desert Road, Fayoum');
```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)
SELECT * FROM `Farmer`

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: []

+ Options

	Farmer_ID	Name	Address
<input type="checkbox"/>	1	Ahmed El-Sayed	Abdulsalam Metwali St., Asyut
<input type="checkbox"/>	2	Mona Hussein	Zaqaziq, Sharqiya
<input type="checkbox"/>	3	Karim Saleh	Luxor Nile Street, Luxor
<input type="checkbox"/>	4	Aisha Mansour	Wadi Natroun, Buhayraa
<input type="checkbox"/>	5	Hassan Omar	Fayoum Desert Road, Fayoum

With selected: Edit Copy Delete Export

```
INSERT INTO Farm_Size (Farmer_ID, Farm_Size) VALUES
(1, 55.0),
(1, 80.0),
(2, 45.0),
(3, 120.0),
(4, 95.0);
```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)
SELECT * FROM `Farm_Size`

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: []

+ Options

	Farmer_ID	Farm_Size
<input type="checkbox"/>	1	55
<input type="checkbox"/>	1	80
<input type="checkbox"/>	2	45
<input type="checkbox"/>	3	120
<input type="checkbox"/>	4	95

With selected: Edit Copy Delete Export

```
INSERT INTO Field (Field_ID, Size, Farmer_ID) VALUES
(1, 12.0, 1),
(2, 18.0, 2),
(3, 20.0, 3),
(4, 22.0, 4),
(5, 25.0, 5);
```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

```
SELECT * FROM `Field`
```

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key:

+ Options

		Field_ID	Size	Farmer_ID
<input type="checkbox"/>	Edit Copy Delete	1	12	1
<input type="checkbox"/>	Edit Copy Delete	2	18	2
<input type="checkbox"/>	Edit Copy Delete	3	20	3
<input type="checkbox"/>	Edit Copy Delete	4	22	4
<input type="checkbox"/>	Edit Copy Delete	5	25	5

Check all | With selected: Edit Copy Delete Export

```
INSERT INTO Farm_Worker (Worker_ID, Worker_Name) VALUES
(1, 'Omar Youssef'),
(2, 'Layla Nabil'),
(3, 'Samir Tawfik'),
(4, 'Nour Khaled'),
(5, 'Farah Fathy');
```

Showing rows 0 - 4 (5 total, Query took 0.0004 seconds.)

```
SELECT * FROM `Farm_Worker`
```

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key:

+ Options

		Worker_ID	Worker_Name
<input type="checkbox"/>	Edit Copy Delete	1	Omar Youssef
<input type="checkbox"/>	Edit Copy Delete	2	Layla Nabil
<input type="checkbox"/>	Edit Copy Delete	3	Samir Tawfik
<input type="checkbox"/>	Edit Copy Delete	4	Nour Khaled
<input type="checkbox"/>	Edit Copy Delete	5	Farah Fathy

Check all | With selected: Edit Copy Delete Export

```

INSERT INTO Assigned_Task (Worker_ID, Task_Name) VALUES
(1, 'Irrigation'),
(1, 'Plowing'),
(2, 'Harvesting'),
(3, 'Planting'),
(4, 'Weeding');

```

Showing rows 0 - 4 (5 total, Query took 0.0004 seconds.)

SELECT * FROM `Assigned_Task`

		Worker_ID	Task_Name
<input type="checkbox"/>		1	Irrigation
<input type="checkbox"/>		1	Plowing
<input type="checkbox"/>		2	Harvesting
<input type="checkbox"/>		3	Planting
<input type="checkbox"/>		4	Weeding

Check all With selected:

Show all | Number of rows: 25 Filter rows: Search this table Sort l

```

INSERT INTO Assign_Task (Worker_ID, Field_ID)
SELECT Farm_Worker.Worker_ID, Field.Field_ID
FROM Farm_Worker, Field
WHERE Farm_Worker.Worker_ID = 2 AND Field.Size > 15;

```

Showing rows 0 - 3 (4 total, Query took 0.0007 seconds.)

SELECT * FROM `Assign_Task`

		Worker_ID	Field_ID
<input type="checkbox"/>		2	2
<input type="checkbox"/>		2	3
<input type="checkbox"/>		2	4
<input type="checkbox"/>		2	5

Check all With selected:

Show all | Number of rows: 25 Filter rows: Search this table Sort b

```

INSERT INTO Equipment (Equipment_ID, Equipment_Name,
Usage_Status) VALUES
(1, 'Tractor', 'Available'),
(2, 'Harvester', 'In Use'),
(3, 'Plow', 'Under Maintenance'),
(4, 'Seeder', 'Available'),
(5, 'Sprayer', 'In Use');

```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

SELECT * FROM `Equipment`

	Equipment_ID	Equipment_Name	Usage_Status
<input type="checkbox"/>	1	Tractor	Available
<input type="checkbox"/>	2	Harvester	In Use
<input type="checkbox"/>	3	Plow	Under Maintenance
<input type="checkbox"/>	4	Seeder	Available
<input type="checkbox"/>	5	Sprayer	In Use

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: ↗

+ Options

Edit Copy Delete 1 Tractor Available

Edit Copy Delete 2 Harvester In Use

Edit Copy Delete 3 Plow Under Maintenance

Edit Copy Delete 4 Seeder Available

Edit Copy Delete 5 Sprayer In Use

Check all With selected: Edit Copy Delete Export

```

INSERT INTO Used_In (Equipment_ID, Field_ID)
SELECT Equipment.Equipment_ID, Field.Field_ID
FROM Equipment, Field
WHERE Equipment.Usage_Status = 'Available' AND Field.Size <= 25;

```

Showing rows 0 - 9 (10 total, Query took 0.0006 seconds.)

SELECT * FROM `Used_In`

	Equipment_ID	Field_ID
<input type="checkbox"/>	1	1
<input type="checkbox"/>	4	1
<input type="checkbox"/>	1	2
<input type="checkbox"/>	4	2
<input type="checkbox"/>	1	3
<input type="checkbox"/>	4	3
<input type="checkbox"/>	1	4
<input type="checkbox"/>	4	4
<input type="checkbox"/>	1	5
<input type="checkbox"/>	4	5

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key

+ Options

Edit Copy Delete 1 1

Edit Copy Delete 4 1

Edit Copy Delete 1 2

Edit Copy Delete 4 2

Edit Copy Delete 1 3

Edit Copy Delete 4 3

Edit Copy Delete 1 4

Edit Copy Delete 4 4

Edit Copy Delete 1 5

Edit Copy Delete 4 5

Check all With selected: Edit Copy Delete Export

```

INSERT INTO Crop (Crop_ID, Crop_Name, Planting_Season,
Harvest_Season) VALUES
(1, 'Wheat', 'Winter', 'Spring'),
(2, 'Rice', 'Spring', 'Autumn'),
(3, 'Barley', 'Autumn', 'Winter'),
(4, 'Cotton', 'Summer', 'Autumn'),
(5, 'Corn', 'Spring', 'Summer');

```

Showing rows 0 - 4 (5 total, Query took 0.0006 seconds.)

SELECT * FROM `Crop`

	Crop_ID	Crop_Name	Planting_Season	Harvest_Season
<input type="checkbox"/>	1	Wheat	Winter	Spring
<input type="checkbox"/>	2	Rice	Spring	Autumn
<input type="checkbox"/>	3	Barley	Autumn	Winter
<input type="checkbox"/>	4	Cotton	Summer	Autumn
<input type="checkbox"/>	5	Corn	Spring	Summer

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

+ Options
← →
Crop_ID
Crop_Name
Planting_Season
Harvest_Season

Check all With selected: Edit

```

INSERT INTO Farm_Supply (Supply_ID, Supply_Name, Supply_Type,
Quantity) VALUES
(1, 'Fertilizer', 'Chemical', 150),
(2, 'Pesticides', 'Chemical', 75),
(3, 'Compost', 'Organic', 100),
(4, 'Seeds', 'Organic', 300),
(5, 'Irrigation Pipes', 'Tool', 50);

```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

SELECT * FROM `Farm_Supply`

	Supply_ID	Supply_Name	Supply_Type	Quantity
<input type="checkbox"/>	1	Fertilizer	Chemical	150
<input type="checkbox"/>	2	Pesticides	Chemical	75
<input type="checkbox"/>	3	Compost	Organic	100
<input type="checkbox"/>	4	Seeds	Organic	300
<input type="checkbox"/>	5	Irrigation Pipes	Tool	50

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key:

+ Options
← →
Supply_ID
Supply_Name
Supply_Type
Quantity

Check all With selected: Edit

```
INSERT INTO Used_For (Supply_ID, Crop_ID) VALUES  
(1, 1),  
(2, 2),  
(3, 3),  
(4, 4),  
(5, 5);
```

Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

```
SELECT * FROM `Used_For`
```

	Supply_ID	Crop_ID
<input type="checkbox"/>	1	1
<input type="checkbox"/>	2	2
<input type="checkbox"/>	3	3
<input type="checkbox"/>	4	4
<input type="checkbox"/>	5	5

+ Options Sort by

← → ▾ Supply_ID Crop_ID

Edit Copy Delete 1 1
 Edit Copy Delete 2 2
 Edit Copy Delete 3 3
 Edit Copy Delete 4 4
 Edit Copy Delete 5 5

Check all With selected: Edit Copy Delete Export

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by

Thank You 😊