Use Case Table - Smart Agriculture AI

ID	Use Case	Actor(s)	Goal	Pre-condition	Main Flow
1	**Register**	Farmer / Agr. Engineer	Create a new account	User is not registered	Enter data -> System validates -> Account created
2	**Login**	Farmer / Agr. Engineer	Access the system	User has an existing account	Enter credentials -> System validates -> Login
3	**Logout**	Farmer / Agr. Engineer	Exit the system	User is logged in	Click Logout -> Session ends
4	**Add Farm**	Farmer / Agr. Engineer	Register a new farm	User is logged in	Enter farm details -> Save
5	**View Farm**	Farmer / Agr. Engineer	View farm details	Farm exists in database	Click "View Farm" -> Display details
6	**Update Farm**	Farmer	Modify farm data	Farm exists	View Farm -> Edit details -> Save
7	**Delete Farm**	Farmer	Remove a farm	Farm exists	View Farm -> Click Delete -> Confirm
8	**Add Schedule Plan**	Farmer	Add planting schedule	Farm exists	View farm -> Add yearly plants & dates
9	**Add Plant**	Farmer	Add a plant to a farm	Farm exists	View farm -> Select plant -> Add
10	**Delete Plant**	Farmer	Remove a plant	Plant exists in farm list	Select plant -> Click Delete
11	**Upload Photo**	Farmer	Upload plant image	Plant exists	Select image -> Upload -> Process
12	**View Report**	Farmer / Agr. Engineer	View analysis report	Uploaded image available	System displays analysis & diagnosis
13	**Pest Detection**	Pest Detection API	Detect pests	Image received by API	Analyze image -> Return pest data

14	**Disease Detection**	Disease Detection API	Detect plant diseases	Image received by API	Analyze image -> Return disease data
15	**Treatment Rec.**	Treatment Rec. API	Provide treatment	Disease report available	Generate recommendation -> Return output
16	**Ask Questions**	Farmer	Query the chatbot	User is logged in	Enter question -> Send to Chatbot
17	**Chat**	Farmer / Agr. Engineer	Direct communication	Access granted to engineer	Exchange messages in real-time
18	**Give Access**	Farmer	Allow farm access	Engineer exists in system	Select engineer -> Grant permissions
19	**Add Blog**	Agr. Engineer	Publish an article	Engineer is logged in	Write post content -> Publish
20	**View Blog**	Farmer	Read blog posts	-	Open blogs page -> Select article
21	**Weather Predict.**	Weather API	Send weather data	-	Analyze weather patterns -> Return report
22	**Plant Rec.**	Plant Rec. API	Suggest suitable plants	Weather data available	Analyze conditions -> Return plant suggestions