**永优玉米数据库设计**

1、数据库设计

|  |  |  |  |
| --- | --- | --- | --- |
| 序号 | 表 |  | 说明 |
| T01 | Region | 区域 |  |
| T02 | Crop | 作物 |  |
| T03 | CropCultivar | 作物品种 |  |
| T04 | CropGrwp | 作物发育期 | Crop Growth Period |
| T05 | CropParameter | 作物参数 |  |
| T06 | CropWorkspace | 作物工作空间 |  |
| T07 | Station | 站点 |  |

2、表设计

T01. Region

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | RgnID | varchar | 16 |  |  |  | 区域ID |
| 02 | RgnCode | varchar | 32 |  |  |  | 区域代码 |
| 03 | RgnName | varchar | 32 |  |  |  | 区域名称 |
| 04 | Remark | varchar | 128 |  |  |  | 备注 |

T02. Crop

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | CropID | varchar | 16 |  |  |  | 作物ID |
| 02 | CropCode | varchar | 32 |  |  |  | 作物代码 |
| 03 | CropName | varchar | 32 |  |  |  | 作物名称 |
| 04 | Remark | varchar | 128 |  |  |  | 备注 |

T03. CropCultivar

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | CropID | varchar | 16 |  |  |  | 作物ID |
| 02 | CultivarID | varchar | 16 |  |  |  | 发育期ID |
| 03 | CultivarCode | varchar | 32 |  |  |  | 发育期代码 |
| 04 | CultivarName | varchar | 32 |  |  |  | 发育期名称 |
| 05 | Remark | varchar | 128 |  |  |  | 备注 |

T04. CropGrwp

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | CropID | varchar | 16 |  |  |  | 作物ID |
| 02 | GrwpID | varchar | 16 |  |  |  | 发育期ID |
| 03 | GrwpCode | varchar | 32 |  |  |  | 发育期代码 |
| 04 | GrwpName | varchar | 32 |  |  |  | 发育期名称 |
| 05 | GrwpSpan | varchar | 16 |  |  |  | 发育期跨度【注1】 |
| 06 | Remark | varchar | 128 |  |  |  | 备注 |

【注1】发育期跨度格式：mm.dd-mm.dd

T05. CropParameter（待设计）

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | CropID | varchar | 16 |  |  |  | 作物ID |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

T06. CropWorkspace

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | RgnID | varchar | 16 |  |  |  | 区域ID |
| 02 | CropID | varchar | 16 |  |  |  | 作物ID |
| 03 | CultivarID | varchar | 16 |  |  |  | 品种ID |
| 04 | GrwpID | varchar | 16 |  |  |  | 发育期ID |
| 05 | GrwpName | varchar | 32 |  |  |  | 发育期名称 |
| 06 | GrwpSpan | varchar | 16 |  |  |  | 发育期跨度 |
| 07 | thrRain | varchar | 32 |  |  |  | 降水阈值：R0 |
| 08 | thrSunlight | varchar | 32 |  |  |  | 光照阈值：S0 |
| 09 | thrTemperature | varchar | 32 |  |  |  | 温度阈值：T0-TL-TH  【注1】 |
| 10 | Remark | varchar | 128 |  |  |  | 备注 |

【注1】温度阈值：格式为T0-TL-TH，其中T0、TL、TH分别为适宜气温、最低气温和最高气温。

T07. Station

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 字段 | 类型 | 大小 | PK | FK | 不允许NULL | 备注 |
| 01 | StationID | varchar | 16 |  |  |  | 站点ID |
| 02 | StationName | varchar | 32 |  |  |  | 站点名称 |
|  | Lon |  |  |  |  |  | 经度 |
|  | Lat |  |  |  |  |  | 纬度 |
|  | Alt |  |  |  |  |  | 海拔 |
|  | RegID |  |  |  |  |  |  |
|  | Region |  |  |  |  |  |  |
|  | Remark | varchar | 128 |  |  |  | 备注 |

3、查询

|  |  |  |
| --- | --- | --- |
| 序号 | 名称 |  |
| 1 | sp\_Crop | SELECT Crop.CropID, Crop.CropCode, Crop.CropName, Crop.Remark  FROM Crop  ORDER BY Crop.CropID; |
| 2 | sp\_CropCultivar | SELECT CropCultivar.CropID, CropCultivar.CultivarID, CropCultivar.CultivarCode, CropCultivar.CultivarName, CropCultivar.Remark  FROM CropCultivar; |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |