

*Nectarines.*Downton,
Elruge,

Early Violet.

*Grapes,**(for culture under glass.)*Black Hamburg,
Black Prince,
Black Frontignan,
Grizzly Frontignan,White Frontignan,
White Muscat of Alexandria,
Chasselas of Fontenbleau,*(for open culture)*

Isabella,

Catawba.

*Currants.*Red Dutch,
White Dutch,
Black Naples,May's Victoria,
White Grape,*Gooseberries.*Houghton's Seedling,
Woodward's Whitesmith,
Crown Bob,
Red Champagne,
Warrington,Laurel,
Ironmonger,
Early Sulphur,
Green Gage,
Green Walnut.*Raspberries.*Red Antwerp,
Knevet's Giant,Fastolf,
Yellow Antwerp.*Strawberries.*Large Early Scarlet,
Boston Pine,

Hovey's Seedling.

The following list was adopted by the convention as new varieties, which "give promise of being worthy of being added to the list for general cultivation":—

*Plums.*River's Favorite,
St. Martin's Quetsche,

McLaughlin.

*Pears.*Beurre d'Ajoux,
Doyenne Boussock,
Manning's Elizabeth,
Doyenne d'Ete,
Striped Madeleine,
Duchess d'Orleans,
Pratt,Paradise d'Automne,
Van Assene,
Jalousie de Fontenay Vendee,
Chancellor,
Ananas d'Ete,
Brandywine,
Ott.*Strawberries.*

Barr's New Pine,

Jenny's Seedling.

*Apples.*Early Harvest,
Large Yellow Bough,
American Summer Pearmain,
Summer Rose,
Early Strawberry,
Gravenstein,
Fall Pippin,Rhode Island Greening,
Baldwin,
Roxbury Russet,
And for particular localities—
Yellow Bellefleur,
Esopus Spitzenberg,
Newtown Pippin.*Pears.*Madeleine,
Dearborn's Seedling,
Bloodgood,
Tyson,
Golden Beurre of Bilboa,
Bartlett,
Williams's Bon Chretien, or
Bartlett,Seckel,
Flemish Beauty,
Beurre Rose,
Winter Nelis,
Beurre d'Arenberg,
And for particular localities—
White Doyenne,
Gray Doyenne.*Peaches.*Grosse Mignonne,
George IV,
Early York, *scratched*,
Large Early York,
Morris White,
Oldmixon Freestone,Cooledge's Favorite,
Bergen's Yellow,
Crawford's Late,
And for particular localities—
Heath Cling.*Plums.*Jefferson,
Green Gage,
Washington,
Purple Favorite,
Bleecker Gage,Cox's Golden Drop,
Frost Gage,
Purple Gage,
And for particular localities—
Imperial Gage.*Cherries.*May Duke,
Black Tartarian,
Black Eagle,
Bigarreau,Knight's Early Black,
Downer's Late,
Elton,
Downton.

LECTURE ON BOTANY.

On Monday evening week, Mr. Just delivered his lecture in the Royal Institution, Manchester, before a numerous audience. Having briefly referred to the leading topics of a previous lecture, he noticed the three principles which seemed to rule over all vegetable productions, namely, germination, vegetation, and fructification. Each germ took in, from the influences of such conditions that surrounded it, a material which stimulated vitality, so as to enable this vitality to react upon the material, and give it an organised development. The conditions which called forth such developments were few, while the number of germs was almost limitless both in the sea, in the air, and on land. Germination was the primary and essential principle; replete, however, as the air and water were with germs, the earth was more within the scope of our observation. From what had sprung the verdure of England—her grassy meadows, her golden harvests, her unrivalled fences, and her magnificent forest trees? Seeds which were not flying or floating, but fixed germs, were supplied within themselves with all the requisites for their germination: and were not like the other kind of production, dependent upon external supplies for stimuli to their development. Still the germination of seeds was not irrespective of external conditions. To induce the germs within the seeds to act, three special conditions were necessary: a proper degree of temperature, a free access of air, and shelter from the direct light, with a sufficiency of moisture.

Having entered into a description of the process of germination, the lecturer proceeded to define the processes of vegetation. It was distinct from, yet accessory to, germination. It required a different kind of aliment, and thereby built up a different kind of structure; it developed the true axis of growth—downward into the soil, and upward into the air. It comprehended roots, with their appendages in the soil, and stems with their appendages in the air; and consequently it embraced a whole class of organs, running through an indefinite number of modifications, according to the nature of their several species and the different localities in which they were situated. The principle of vegetation continued active for an indefinite period; at first, growth is rapid, and the young plant shoots up apace; by-and-by, a check comes on in the annual shoots, the buds yield less and less developments, and another change takes place in the vegetable system. Fructification, the third and last principle, now ensues, either completing its functions, and exhausting the natural supply of nutriment in one season, as among annuals; or, during the second season of growth, exhausting the accumulation of the first, as among biennials; or otherwise, keeping up a constant supply by drawing annually upon the stores within the plants, and annually replacing them. In the annual plants, the true vegetation was of very short duration, and that of fructification of longer continuance. The whole supply of fecula was exhausted, however, by this last event, and there being no vegetation to supply more, the annual died of pure inanition. With biennials, during the first season, each plant vegetated alone; and during the second, each fructified alone; but during the second year, the store of nutriment being exhausted, the biennial also died of pure inanition; and so also with the perennial, when fructification had exhausted its stock of fecula. Fructification, though dependent upon vegetation, as the latter was upon germination, must have its appropriate organs and developments. Whether of the lowest or most elevated kind, it consisted always of two classes of organs, and two classes of development: fertilization and fecundation must first ensue ere the fruit can set, or maturation take place. The fertilizing organs were