

- Vaise Ijsbouw: N.J.  
 Van Deman quince: Ore.(M)  
 Variolosa (*P. variolosa*): Cal., Ill., N.J.,  
 Ore.(M), Tenn.  
 Vauquelin: N.J.  
 Vergules: N.Y.  
 Vermont Beauty: Cal., Mass., Mich., N.Sc.,  
 N.Y., Ore.(M), Tenn.  
 Verte longue panache: N.J.  
 Verte longuo d'Automne: Ore.(M)  
 Vicar of Winkfield: Cal.  
 Vice Pres. Aubert: N.J.  
 Victory: N.Y.  
 Virgalieu (White Doyenne): N.Y., Tenn.  
 Virginia Baltet: N.Y., O.  
 Waite: Ark., Colo., Conn., Ga., Ill., Ind., Kan.,  
 Ky., Mass., Mo., N.Sc., N.Y., O., Ont., Pa.,  
 S.C., Tenn., Va.  
 Walenta #1: C.E.F.  
 Walker (Amande Double): Ga.  
 Wallis Kieffer: N.Y.  
 Warner: Ore.(M)  
 Waseaka: N.Y., Tenn.  
 Weilersche Mostbirne: N.Y.  
 White Doyenne (Doyenne White Virgalieu):  
 N.Y., Ore.(M), Tenn.  
 White Star: Ore.(M)  
 Wilder Early: Cal., N.Sc., N.Y., Ore.(M)  
 Willard: Mass., N.H., N.Sc., N.Y., O., Tenn.  
 Winding von Einsiedel: N.Y.  
 Winter Bartlett: Ark., D.E.S., Colo., N.Y.,  
 Ore.(M)  
 Winter Cole: Ill., N.Y., O., Ore.(C), Ore.(M)  
 Winter Nelis: Ark., Cal., D.E.S., Ill., Mass.,  
 Mich., Mo., N.Sc., N.Y., Ont., Ore.(C),  
 Ore.(M), Utah, Va., Wash.(W)  
 Winter Nelis Sports:  
 Giant Winter Nelis: N.Y.  
 Large (fruited) Winter Nelis: Colo., O.  
 Russet Winter Nelis: O., N.Y.  
 Worden-Seckel: Ark., Cal., Ky., Mass., N.Y.,  
 N.Sc., O., Ore.(M), Va.  
 Wyley: Ark.  
 Ya Kuang Li: Ind., Ill., N.J., Ore.(M)  
 Yarats: O.  
 Zackman: N.Sc.  
 Zoctor Braderodo (Zolte Brederode): O.  
 Zuckerbirn: Ore.(M)  
 Zwijndrechtse Wijlpeper (Zwijniechste): O.



## Hardy Understocks for Golden Delicious Apple

My experience is that Erickson is a poor understock for Golden Delicious. Permain grafted on it blights much more than on Haralson. The Erickson stands the winters well, but we have discarded it in favor of the newer kinds.

I have grafted Golden Delicious apple on Red Van Buren, Wealthy, Dolgo, Haralson, Malinda, Blocks Special, Piotosh Crab, Patten Greening, Hibernial, Minn. No. 738, Minn. No. 724, Minn. No. 375, Minn. No. 790, Prairie Spy, Red Wing, Melba, Virginia Crab, Erickson, Fowell, Wedge, Whitney, 635 Crab, Minn. Crab, on a crab I propagated from the neighbor's tree and many others. The Golden Delicious have stayed "put" the longest on Minn. 738, Dolgo, Haralson, Melba,

and Piotosh Crab. I think the Minn. No. 738 apple should not be overlooked as an understock for Golden Delicious because it has held the grafts about as long as anything on the place.

It appears to me that grafting Golden Delicious on the rank growth of most of the above kinds has a tendency to shorten the life of the tender kinds grafted on them; that is, a graft on a main central leader is less hardy than one way out on a limb. A damaged limb can be cut out because of winter damage easier than a main leader limb. Of course, if too much wood is cut off at the time of grafting, too much rank growth may occur and then the first hard winter may get them. It is better to have more grafts, with some to be cut out later, than too rank a growth.  
 —Louis H. Block, Ortonville, Minnesota