

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

PLANT MATERIALS CENTER
LOS LUNAS, NM

Planting Guide for Production of 'King Red' Russian-olive (Elaeagnus angustifolia var. orientalis).

SEED PRODUCTION

1. When grown under ideal conditions, plants will begin producing seed after four to five years. The seed should be collected in September or October.
2. The seed can be cleaned by either macerating the fresh fruit and float separation of the pulp as with a Dybvig or by allowing the fruit to dry, then hammer-milling at a slow speed so as not to crack the seed and separating the pulp and trash from the seed with a seed cleaner.
3. Russian-olive is dormant ¹and must be stratified to insure an adequate stand. Seed can be artificially stratified at 2^o to 10^oC, with clean sterilized sand as a medium, for sixty to ninety days. The seed can also be stratified naturally by sowing in January.

PRODUCTION OF SEEDLINGS

1. For best growth, plants should be grown in a well-drained sandy loam. The seedbed can be prepared by plowing, disking and firming the surface with a roller or cultipacker.

Fumigation of seedbeds prior to planting is helpful to reduce weed competition and insect or disease problems. CAUTION: Be sure to handle

^{1/} U.S.D.A. Forest Service. 1974. Seeds of Woody Plants in the United States. U.S.D.A. Agric. Handb. 450. 883pp.

and apply fumigants or any other chemicals according to labeled instructions.

Russian-olive seedlings are susceptible to damage from rabbits and must be protected if they are a problem.

2. Artificially stratified seed may be planted after danger of killing frost has passed. Emergence should begin after approximately two weeks. For natural stratification, seed should be planted prior to February 1. Emergence of naturally stratified seed at Los Lunas, N. M. begins in April.
3. At the Los Lunas Plant Materials Center (PMC) the seed are sown in rows in beds. There are four rows, spaced 20 cm apart, in each bed. The beds are spaced for ease of access and cultivation. Seeding rates will vary according to ultimate use. At the Los Lunas PMC, approximately 200 seed or 40 grams of clean seed per meter, should yield 150 useable plants. Seeding rates this heavy will yield a high percentage of uniform liner stock (20-40cm tall) after two years. Lower seeding rates would yield larger, less uniform, plants. The seed should be planted 1-2.5 cm deep.
4. The beds should be mulched to prevent excessive drying. An excelsior mulch with net backing is used at the Los Lunas PMC. This enables the mulch to be tacked down to prevent it from blowing. The beds should be sprinkled only enough to keep the seed zone moist to lessen the possibility of damping off.
5. Seedlings of Russian-olive are not fertilized at the Los Lunas PMC.

... If fertility is a problem, fertilization should be guided by soil tests.

6. The plants should be dug when dormant, after one or two growing seasons.

Prepared by J. F. - 3/79