The chief field pea growing section of Colorado is the San Luis valley. There the altitude varies from 7,500 to 8,000 feet, the climate is cool with no hot days in summer and all crops are raised under irrigation. Nearly 200,000 acres are grown in the valley and there are many fields of 160 to 320 acres seeded to this crop. Good yields of peas have been reported in other sections of the state having an altitude as low as 6,500 feet.

Field peas need cool weather throughout their period of growth and particularly when the pods are filling. When the field pea blooms in hot weather the flowers blight and wither away and but few peas form.

With rich soil, a deep mellow seed bed or an abundance of water the field pea makes an excessive growth of vines—5 to 15 feet in length—with few peas. A good hay crop.

With a shallow seed bed, the seed resting on hard ground and the water supply limited the vines become stunted, growing to a height of only two to three feet, and the yield of peas is frequently 50 bushels per acre. Experienced growers grow peas on their poor fields as rich soils produce vines and not peas.
Variety. The Mexican field pea is the variety usually grown. It is a mixture of large and small peas, gray, green and white in color. In the mixture there is generally a considerable per cent of small gray peas. These produce poorly podded vines with few peas in a pod and the yield can be considerably increased by screening them out before seeding. Several new varieties give promise of larger yields than the Mexican but they have not as yet had a sufficient trial.

Seeding. Sixty pounds of seed are sown to the acre. Many growers plow and thoroughly prepare the ground for the previous crop, seeding the peas on unplowed ground with a grain drill, stopping every other hole and setting the drill to seed about three inches deep. This is done to stunt the vines and force the plants to produce large yields of peas. Where ground is plowed, the plowing should be shallow and the peas seeded to rest on hard ground.

When to Seed. The large yields of peas come from either February or early March seeding. Seeding in April and May usually results in a poor crop and often in a total failure. Some experienced growers believe that profitable crops of field peas may be grown at an altitude as low as 5,000 feet, if seeded early in February. At such a low altitude the pods must form and the peas set before there are hot days.

Early seeded peas often freeze down in seasons of late spring frosts but this does not seem to hurt the yield. A field seeded early in 1907 was badly frozen three times during the spring, yet yielded 50 bushels an acre.

Irrigation. Field peas are not cultivated. When liberally supplied with water, they make a luxuriant growth of vines bearing few peas and may be cut for hay, being treated the same as alfalfa. Pea hay is a good feed for cattle and sheep, poor for horses.

When grain is wanted the water supply must be limited and the vines stunted. When the vines begin to wilt during the day from lack of water but freshen at night, do not irrigate. When they appear wilted in the early morning, apply water, soaking the ground thoroughly. Irrigate a second time when the peas have again wilted as previous to the first irrigation. The rule is to so apply water as to stunt the vines and keep down the growth to two or three feet and force a heavy setting of peas.

Harvesting. Peas in the San Luis Valley are usually not harvested. Fall frosts kill the vines and they cure just as they stand. Then lambs or pigs are turned into the fields to fatten and they gather the crop. This method requires little labor but does not give as large returns as when the crop is harvested and the stock is confined while fattening.
The peas may be cut with a mower, cured in cocks and stacked like hay, though the horses and machinery shell out much grain.

The cheapest method is to gather the dry, uncut vines with the bull rake used in haying and stack with a hay stacker. Where the empty rake starts in, some of the vines are left but as soon as a few forkfuls gather on the rake the vines are taken up clean and there is no shelling.

In feeding either cattle, sheep or hogs the peas may be fed directly from the stack without threshing, it being an advantage to have the stock eat the leaves with the grain.

*Feed Value.* The average yield per acre in the San Luis Valley is from 20 to 25 bushels, careful growers frequently raise 50 bushels per acre and with select seed and good farming there are authentic yields as high as 74 bushels per acre.

Feeders estimate that an acre of good peas will put 400 pounds of gain on hogs, where the hogs are turned loose in large fields and from 600 to 800 pounds of gain where the peas are harvested and fed to hogs kept in small yards.

The Bank of Monte Vista reports that 13,458 lambs pastured on 2,011 acres of ripe field peas gained 191,884 pounds, an average gain per acre of 95½ pounds and an average gain per head of 14½ pounds. There were eleven lots of lambs and the gains varied from 61 to 147 pounds per acre and the gains per head from 11 to 17 pounds.

Lambs shell out a good many peas in running over the fields and after they are taken off, hogs are turned on and make from 100 to 200 pounds gain per acre from the gleanings.

Beef cattle, followed by hogs, are fattened on the unharvested peas but we have no data as to gains made.

Peas may form one-half the grain ration for laying hens and when fed to fattening chicks give the flesh a delicious flavor. Peas give a choice flavor to the flesh of cattle, hogs and sheep.

*Cost of Raising.* The following figures show the actual cost per to a grower in the San Luis Valley:

- Seeding: $0.35
- Seed, 60 pounds at $1.75: $1.05
- Labor Irrigating: $0.25
- Water Rent: $0.08
- Rent of Land: $3.00

**Total:** $4.73
Fertilizing Value. The roots of field peas take nitrogen from the air and enrich the soil the same as alfalfa and clover. To do this, they must be supplied with the bacteria which form nodules on the roots. There are few of these bacteria in soil where peas have never been grown and on such soils, field peas should be seeded two years in succession to secure a full yield and a thorough inoculation.