AGRONOMIC AFFAIRS

RECOMMENDATIONS WITH REFERENCE TO FERTILIZATION OF TOBACCO GROWN ON AVERAGE SOILS IN VIRGINIA, NORTH CAROLINA, SOUTH CAROLINA, AND GEORGIA DURING 1929

I. FERTILIZERS FOR BRIGHT PLUE-CURED TOBACCO

1. Analyses of Mixtures:
   1. For heavy or more productive soils.—Eight per cent available phosphoric acid, 3% ammonia, and 5% potash, except for gray soils with red subsoils of the Cecil series of Virginia where 8% available phosphoric acid, 3% ammonia, and 3% potash is recommended.
   2. For light or less productive soils.—Eight per cent available phosphoric acid, 4% ammonia, and 6% potash.

2. For Control of “Sand-drown” (Magnesia Hunger):
   For sections where “sand-drown” is prevalent, it is recommended that fertilizers carry 2% magnesia (MgO). This may be derived from sulfate of potash-magnesia, dolomitic limestone, or any other material carrying magnesia in forms known to be available to the plant.

3. Amount of Fertilizer:
   Use 800 to 1,200 pounds per acre in the drill thoroughly mixed with the soil just before transplanting.

4. Sources of Plant Food Constituents:
   1. Phosphoric acid.—Derived from superphosphate.
   2. Potash.—Derived from a combination of high-grade muriate of potash with either high-grade sulfate of potash or sulfate of potash-magnesia, or both.

   Available experimental data at this time from bright tobacco sections of Virginia, North Carolina, South Carolina, and Georgia show that a small quantity of chlorine in the tobacco fertilizer increases the acre value of the crop. Experience has shown, however, that an excessive amount of chlorine in fertilizers used for tobacco injures its growth, producing a thick brittle leaf, and also has an unfavorable effect upon its burning quality. It is recommended, therefore, that fertilizers be compounded with the above-named sources of potash in such proportions that the fertilizer mixtures shall contain a maximum of 2% of chlorine. Since research has shown that heavier applications of high-grade potash are profitable, it is recommended that the potash content of mixed fertilizers exceed that of ammonia by at least two units, except for gray soils with red subsoils of the Cecil series in Virginia.