**Imputation methodology**

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# Formula and Pseudo-code

The aggregated change ratio from one year to another is defined as:

$\label{eq:chratio}
\Delta{X\_{s, t}} = \frac{\sum\_{s \in S} X\_{s, t}}{\sum\_{s \in S} X\_{s, t-1}}$

Where is the official series of production or area, and the set is defined as follow.

The validation rule is applies to the imputed change of the yield, the bound can be computed as follow only on official and semi-official change ratio of yield computed above.

$\begin{aligned}
\label{eq:validBound}
L(X) &= Q(X, 0.25) - [Q(X, 0.5) - Q(X, 0.25)]\nonumber \\
U(X) &= Q(X, 0.75) + [Q(X, 0.75) - Q(X, 0.5)]\end{aligned}$

[H] Initialization